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Mesquakie (Fox) Material Culture: The William Jones and Frederick Starr Collections

James W. VanStone

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Murra, J. 1946. The historic tribes of Ecuador, pp. 785–821. In Steward, J. H., ed., Handbook of South American Indians. Vol. 2, The Andean Civilizations. Bulletin 143, Bureau of American Ethnology, Smithsonian Institution, Washington, D.C.

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Mesquakie (Fox) Material Culture: The William Jones and Frederick Starr Collections

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Mesquakie (Fox) Material Culture: The William Jones and Frederick Starr Collections

James W. VanStone

Abstract

The ethnographic collections of the Field Museum of Natural History contain assemblages of artifacts collected among the Mesquakie (Fox) Indians of Tama, Iowa, by William Jones in 1907 and by Frederick Starr prior to 1905. The artifacts in these collections are described and illustrated. Since there has been no previous comprehensive study of Mesquakie material culture and for comparative purposes, information is included from descriptions in ethnographies of neighboring woodland tribes, especially Skinner's (1921) study of Menominee material culture.

I. Introduction

The Mesquakie

The name Mesquakie, by which these Indians refer to themselves, means "Red Earth" or "Red Earth People" (Forsyth, 1912, p. 183). It is probable that the Mesquakie received the name Fox when members of the Fox clan told a party of French traders that they were the Fox (Jones, 1911, p. 741). From the 1730s to the 1850s, the Mesquakie maintained an alliance with the Sauk, with whom they are closely associated in the ethnographic and historical literature. The Mesquakie are Algonquian speakers who are linguistically most closely affiliated with the Sauk and Kickapoo. They were hunters and horticulturists and shared a cultural tradition with tribes inhabiting the western Great Lakes, especially the Winnebago, Potawatomi, and Menominee.

The Mesquakie were divided into loosely defined bands or villages that were more or less permanent and were located along river bottoms. In garden plots near these villages women grew maize, beans, squash, pumpkins, and melons. Most of the maize they raised was dried and stored. Wild foods were gathered, including wild potatoes, roots, berries, nuts, and maple sap, which was processed into sugar. Tribal buffalo hunts were organized in the spring until 1821, when these animals disappeared from Mesquakie territory (Forsyth, 1912, p. 234). The hunting of deer and other animals was the primary occupation of men. Small game and birds were also utilized for food, but fishing was of minor importance (Forsyth, 1912, pp. 233–234; Marston, 1912, pp. 148–153).

There were, therefore, two distinct phases to Mesquakie subsistence activities. In the spring and summer horticulture was practiced near the permanent villages, while during the fall and winter there was a dispersed existence. Each part of the year was characterized by a different living arrangement. In the spring and summer people lived in their villages in long rectangular houses covered with elm bark. During the fall and winter mat-covered lodges were used (Figs. 1, 2). When families moved, the mat coverings were simply rolled up and taken to the location of a new camp, where they covered a new frame (Joffe, 1940, pp. 263–264; Callender, 1978, p. 637).

Mesquakie social organization was based on a system of exogamous patrilineal clans organized around one or more sacred bundles for which semiannual ceremonies were held. The clan system was thus central to the religious life of the tribe and provided a basis for the transmission of hereditary ritual positions and political offices. All internal affairs were settled by the chiefs in council. Relations with other tribes were maintained

FIG. 1. Mesquakie dwellings in Tama, Iowa (FMNH neg. no. 21027).

FIG. 2. Mesquakie mat-covered lodges (FMNH neg. no. 20677).

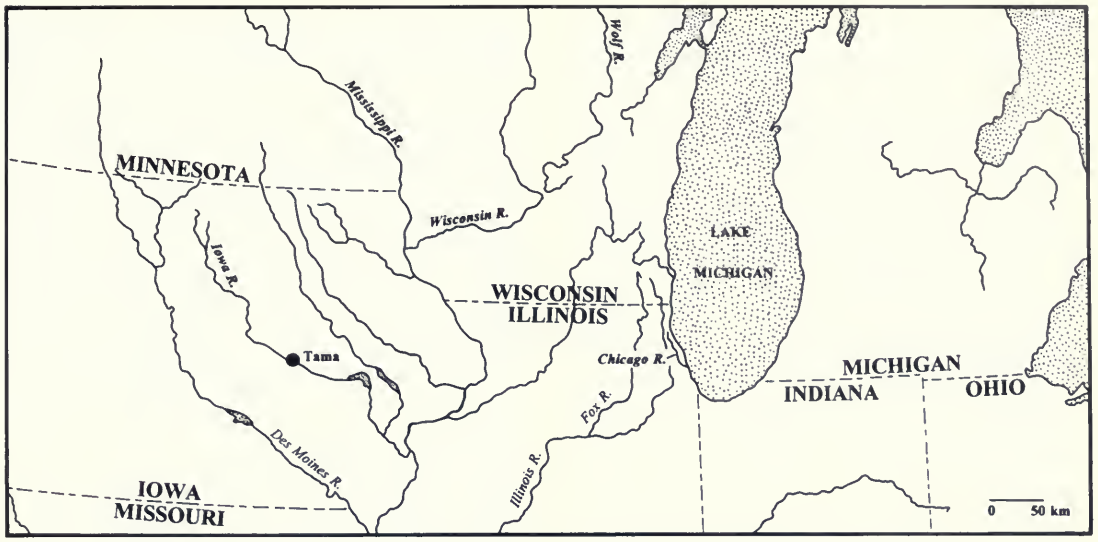

FIG. 3. Map of the western Great Lakes (Adapted from Callender, 1978, p. 637, fig. 1).

by means of wampum, beaded wampum belts being sent as messages. Warfare was of major interest to all men. They went to war to acquire new hunting territory, to avenge those killed in battle, and to achieve prestige (Joffe, 1940, pp. 265, 270–271, 276; Callender, 1978, pp. 639–640; Torrence, 1989, p. 4).

Mesquakie religious life developed around the concept of manitou, which is defined by Torrence (1989, p. 5) as "an abstract, impersonal force that pervades the universe and manifests itself in a multitude of natural forms and phenomena." All aspects of nature were considered sacred and were believed to possess spiritual substance. The various manitous revealed themselves as spirit helpers who were able to give power and blessings to individuals who sought their aid. To achieve contact with the supernatural and to attract the attention of a manitou, an individual fasted, blackened his face, and smoked or offered tobacco. Frequently the manitou then gave the seeker some token, which became the basis of a medicine bundle (Jones, 1905; Joffe, 1940, pp. 272–273; Callender, 1978, pp. 640–641; Torrence, 1989, p. 5). Torrence (1989, p. 6) has noted the extent to which traditional Mesquakie imagery is based on the representation of manitous. The most often depicted, especially on yarn bags, were the thunderbird and the underwater panther, both of which were believed to have power both for good and bad. These manitous were among the most actively sought as spirit helpers.

At the time of first European contact, the Mesquakie were living along the Wolf River in northeastern Wisconsin and ranged over an area extending from Lake Superior to the Chicago River and from Lake Michigan to the Mississippi. About 1677 they moved south to the upper Fox River. Wars with the French and their Indian allies during the early 18th century resulted in the Mesquakie moving to the lower Wisconsin River and eventually to Iowa, where they settled on the west bank of the Mississippi with their Sauk allies (Fig. 3). It is significant that since contact, Mesquakie territory has always included a prairie component (Callender, 1978, p. 636).

Although the vast majority of the Mesquakie and Sauk remained neutral during the Blackhawk War, they were nevertheless forced to cede land as reparations in 1832. More land was ceded in 1837 and in 1842, and both tribes were assigned a reservation in Kansas. The Mesquakie were never happy in Kansas and feared they would eventually be moved to Oklahoma. In 1857 five members of the tribal council purchased 80 acres along the Iowa River in Tama County, Iowa, for $1,000 and ended their alliance with the Sauk, who, with a few remaining Mesquakie, were subsequently sent to Oklahoma. Additional purchases of land eventually brought the tribal holdings up to 4,000 acres, which, in the 1980s, supported approximately 1,000 people (Callender, 1978, p. 641; Torrence, 1989, p. 3).

As Torrence (1989, pp. 3–4) has noted, the pur-

chase of land in Iowa "gave the Mesquakie cultural stability and a sense of pride and security at a time when most Native American tribes were facing the loss of their traditional homelands and the oppressive policies and restraints of reservation life." Although white settlement increased and game animals declined over the years, the Mesquakie were able to preserve their tribal community and much of their traditional culture. At the time the ethnographic collections described in this study were made, the Mesquakie still occupied grouped lodges and took part in annual winter hunts. By that time they had begun to raise a few animals but resisted agriculture, while continuing to rely heavily on horticulture and small game animals (Torrence, 1989, p. 4).

William Jones and Frederick Starr, Collectors

Two collections made among the Mesquakie in Tama County, Iowa, are described in this study. The first, assembled by William Jones for the Field Museum in the spring of 1907, is by far the larger. The second was made by Frederick Starr and was purchased by the museum in 1905. It is part of a much larger personal collection, from many areas of the world, assembled by Starr over a period of years. The exact date when Starr collected the Mesquakie material cannot be determined. Nevertheless, it is probable that the two collections are roughly contemporaneous.

William Jones was the first academically trained Native American anthropologist. He was born of Welsh, English, and Mesquakie descent in 1871 on the Sac and Fox Reservation in what was then Indian Territory (now Oklahoma). Selected to attend the Hampton Institute in Virginia, where he spent three years beginning in 1889, Jones then entered Phillips Exeter Academy, graduating in 1896. In the summer of 1899 Jones revisited his birthplace in Oklahoma, noting that the "Indians don't look like Indians anymore. When I went away they used to look so well in their Indian costumes, but now they are like tramps in trousers and overalls which they don't know how to wear. Indian women are much better looking because they have not changed their dress so much" (quoted in Rideout, 1912, p. 69).

Following his graduation from Phillips Exeter Academy, Jones entered Harvard, graduating in 1900. At some point during his undergraduate studies he spent a summer among the Mesquakie in Tama. Jones entered Columbia University in the fall of 1900 for graduate study, receiving the degree of A.M. in 1901. Franz Boas, Jones's professor and advisor at Columbia, arranged for him to spend the summer of 1901 with the Mesquakie. The project for his initial period of fieldwork involved "linguistic and ethnological investigations among the Sac and Fox Indians and if circumstances should demand, among closely related tribes." "In your work," Jones's appointment read, "you will endeavor to collect as much information as possible on the language and culture of the Sac and Fox, and obtain as many specimens as you can to illustrate the ethnology of the people. Your collections are to be sent to . . . the American Museum of Natural History" (quoted in Rideout, 1912, pp. 72–73).

Jones also spent part of the summer of 1901 in Oklahoma, and in both places he seems mainly to have collected stories; there is no mention of ethnographic collecting. He also spent the summer of 1902 in the field, part of the time in Tama and part of the time in Oklahoma. It was at this time that he made the Mesquakie collection now in the American Museum of Natural History (Rideout, 1912, p. 75).

Jones received his Ph.D. in anthropology in 1904 with a dissertation entitled "Some Problems of Algonkin Word Formation." In the winter of 1906, in New York and unemployed at the time, he met George A. Dorsey, head of the Department of Anthropology at the Field Museum of Natural History. Dorsey offered Jones his choice of three field trips for the museum: Africa, the Pacific Islands, or the Philippines. Jones had hoped to continue Algonquian linguistic and folklore research, but, as a last resort, he agreed to undertake fieldwork in the Philippines (Boas, 1909; Rideout, 1912, pp. 125–129). In June 1906 he went to Chicago to begin preparations for his trip. He sailed from Seattle in August 1907 and was killed by the Ilongot in March 1909, not long before he expected to return to the United States.

On March 27, 1907, Dorsey wrote to the Field Museum's director, F.S.V. Skiff, informing him that Jones had offered to make a short trip to the Mesquakie in Iowa to make a collection for the museum, prior to his departure for the Philippines. Dorsey urged Skiff to take advantage of this opportunity and described the Mesquakie as

> probably the most conservative representatives of the Algonkin stock remaining. They still retain certain forms of primitive habitations and do not mix with the whites. In their social system a great deal of their primitive cus-

toms still exist. They afford, therefore a very good opportunity for the study of primitive conditions such as existed among the so-called woodland Algonkin tribes.

Dorsey urged that $400 be made available to Jones to cover his expenses and the cost of securing the material, a request that was approved. Dorsey further requested that the department's preparator, Jesse Burt, also go to Tama while Jones was there "for the purpose of securing data on the construction of models of the habitations of the [Mesquakie]" (Field Museum of Natural History, Department of Anthropology, correspondence files [DA/CF], Dorsey to Skiff, March 27, 1907).

Jones was in Tama at the beginning of April, and on April 5 he wrote Dorsey that he had met old friends and that people were willing to part with "good pieces." "I wandered in among the [illegible] lodges today and was minded of the days of my childhood." Jones believed that it would be impossible to obtain ceremonial material, but stated that he had contacted four elderly women who were willing and able to make traditional clothing. To do so, however, they would have to be provided with deer hides and sinew, available in Chicago. Jones was encouraged to believe that he could make a collection better than the one he made for the American Museum of Natural History but that it would cost more. He asked Dorsey whether it would be a good idea to collect a complete lodge and suggested that Dorsey visit him toward the end of his stay to observe "what is left of the old culture" (DA/CF, Jones to Dorsey, April 5, 1907). Dorsey replied on April 10 that 11 tanned buckskins and some sinew were being sent and that inquiries should be made about the possibility of acquiring a complete lodge (DA/CF, Dorsey to Jones, April 10, 1907).

On April 14, Jones wrote that the buckskins and sinew had arrived and that the women were making the clothing he had mentioned earlier. He regretted that some of the skins were colored and thus could not be treated with "sumach smudge" in the traditional Mesquakie manner. He also informed Dorsey that sufficient reed mats for the covering of a lodge set up in the museum could probably be acquired for about $25. Jones described a unique otter skin headdress, which he believed to be of considerable historical and ethnographic importance but for which the owner wanted $30 or $35, an amount the collector felt was too high. He further noted that bear claw necklaces were available for about $50 and that sacred bundles, of which he had seen over a dozen, could not be purchased for any price (DA/CF, Jones to Dorsey, April 14, 1907).

Dorsey dispatched Jesse Burt to join Jones on April 22, instructing Burt to decide which aspects of Mesquakie culture he would like to have reproduced as "miniature groups." "I would suggest two or three miniature groups which would bring out the essential features of the culture of these people. I would suggest further that one group be devoted to the salient features of the economic life, the other to the social and religious life" (DA/CF, Dorsey to Jones, April 22, 1907).

In a letter missing from the files, Jones requested an additional $100 from Dorsey; the latter was able to get this request approved and the check sent (DA/CF, Dorsey to Jones, April 24, 1907). On April 28, Jones wrote that the lodge mats needed for covering the museum's lodge were being made but that the traditional clothing commissioned earlier was delayed because the old women hired to do the job were attending a dance (DA/CF, Jones to Dorsey, April 28, 1907).

Jones apparently returned to Chicago a few days later, having spent almost one full month among the Mesquakie. There is no further mention of the work done by Burt during his day or two with Jones. Mats intended to cover a lodge were acquired, but there is no indication that a full-sized lodge was ever constructed at the museum. Many of the mats were later discarded (see Appendix 2). In addition to the $400 appropriated for the project, Jones eventually spent an additional $192. In a letter in the accession file, Dorsey maintained to the museum's director that Jones had assembled as complete a collection as possible in the length of time at his disposal (Field Museum of Natural History, Department of Anthropology, accession files [DA/AF], Dorsey to Skiff, May 10, 1907), and the additional expenditures were eventually approved (DA/AF, Skiff to Dorsey, May 30, 1907).

Unfortunately, there is no information regarding the manner in which Frederick Starr assembled his Mesquakie collection that is comparable to that provided by the Dorsey–Jones correspondence. Starr was invited to join the faculty of the newly established University of Chicago in 1892 as the first anthropologist in the Department of Sociology, a post he held for 31 years. He was trained in the natural sciences and was primarily interested in physical anthropology. He had hoped to establish a museum at the University of Chicago with collections from the World's Columbian

Exposition, which went instead to the newly established Field Columbian Museum (later Field Museum of Natural History).

Starr's research and writing was "rooted permanently in late nineteenth-century [cultural] evolutionism" (Stocking, 1979, p. 12). His attitude toward fieldwork was that of a 19th century museum curator, and his publications were primarily travel accounts and photographic albums. He had little of Dorsey's interest in the documentation of museum collections. An effective popular lecturer, Starr's evolutionary perspective existed outside the mainstream of historical anthropology as defined by his contemporary Franz Boas, who, it will be recalled, had trained Jones. Throughout his career, Starr made many trips to Africa, Mexico, and the Far East.

Beginning in 1896, Starr sold a few pieces from various parts of the world to the Field Museum. On August 1, 1905, he wrote Dorsey to the effect that he had "finally decided to dispose of my collection from Mexico." He went on to describe his collection, which contains approximately 4,500 archaeological and ethnographic objects from various localities in North America (including the Mesquakie), Australia, and Oceania, as well as the material from Mexico. His asking price was $12,000. Starr had hoped that the collection could remain at the University of Chicago, "but if it must be sold outside, it would be more agreeable to me that it would be with you people than with any others" (DA/AF, Starr to Dorsey, August 1, 1905).

Ten days later, on August 11, Dorsey wrote to Edward E. Ayer, a founder of the Field Museum and member of the board of trustees, requesting a decision about the suggested purchase. He noted that Starr was in "desperate straits," as he needed to sell the collection in order to finance a long trip to Africa. Dorsey believed that if the museum did not purchase it, the collection would be sold elsewhere, probably to the American Museum of Natural History (DA/AF, Dorsey to Ayer, August 11, 1905). Approval was eventually given, and the collection was purchased for $9,000.

II. The Collections

The Jones collection (accession 1014) was accessioned on May 13, 1907. In the catalog of the Department of Anthropology, Field Museum of Natural History, the artifacts and related material are assigned 268 catalog numbers. At the time this study was begun, artifacts and related material represented by 41 catalog numbers were missing from the collection. Of this number, 33 are artifacts (see Appendix 2), while 9 are raw materials and plant specimens. Jones paid a total of $540.24 for the collection. The individual prices paid are shown in Appendix 1, but the total is considerably less than this amount, as no prices are given for a few artifacts, and some funds were used to pay for shipment of the collection from Tama to Chicago and for the collector's personal expenses and travel. Documentation for this collection in the accession files of the Department of Anthropology includes a list of items in the collection by field and catalog numbers, a list with prices paid for most items, and eight pages of notes that give the Mesquakie names for most objects and brief ethnographic information about many of them.

The Starr collection (accession 947) was accessioned on September 4, 1905. Mesquakie artifacts in this large, general collection are represented by 70 catalog numbers; eight were missing and unaccounted for at the time this study was begun. The only documentation for this collection is an accession list by catalog number. On this list, the materials from which a few of these artifacts were constructed are noted.

Considered as a unit, the Jones and Starr collections present two difficulties for someone preparing a study of this kind. First, the number of artifacts missing from the collection is considerable. Although these missing items are listed in Appendix 2, no attempt has been made to include them in the artifact descriptions that follow. The second problem relates to the large number of objects that are currently on exhibit in the museum. An ideal solution to this problem would, of course, have been to remove them from exhibit cases for study and photography. For a variety of reasons, this was not possible. Instead, descriptions are based on what I could see, and, as a result, they are invariably incomplete. In a number of cases these exhibited materials were drawn so that some kind of illustration could be included in this study.

Artifacts in the Jones and Starr collections are described within the following use categories: hunting and fishing, tools, transportation, household equipment, clothing, personal adornment, ceremonial equipment, games and toys, miscellaneous beadwork, and raw materials and plant specimens. Descriptions of the artifacts that follow should be read while examining the accom-

panying photographs and drawings. Since there has been no previous comprehensive study of Mesquakie material culture, for comparisons I have relied heavily on descriptions in ethnographies of neighboring woodland tribes, especially Skinner's (1921) study of Menominee material culture.

Hunting and Fishing

As might be expected, objects associated with traditional hunting and fishing are poorly represented in the Mesquakie collections. At the time the collections were made, it is probable that the manufacture and use of such implements would have been far in the past. However, hunting with modern weapons continued to have an important role in the Mesquakie subsistence economy at the time the collections were made.

There are two self *bows*, both of hickory wood. The first weapon is described in the catalog as a man's hunting bow. It is 165 cm long, and both the front and the back of the stave are flat. The stave is 3.9 cm wide at the grip and is not narrowed in this area. Paired V-shaped notches are cut near the end of each horn for attachment of the bow string, which is described in the catalog as being made from a single twisted strand of woodchuck skin (34868; Fig. 4a).

Although this bow is described in the catalog as an "elk bow," the two arrows that accompany it are identified as *fish arrows*. Each of these arrows measures 151 cm in length, lacks fletching, and is notched at the proximal end. The distal ends are worked to a point and do not seem to have been charred for additional hardening (34870-1, 2; Fig. 4b–c). According to Skinner (1921, p. 204), the Menominee formerly shot fish in shallow waters with arrows. A string was tied to the arrow and also fastened to the bow.

The second bow is described in the catalog as "a young man's bow for hunting birds, etc." This bow, which is in an exhibit case, is 134 cm long and is of lighter construction than the one previously described. The stave is flat on the back and slightly rounded on the front. Paired V-shaped notches have been cut near the end of each horn for the attachment of a bowstring of twisted woodchuck skin (34867). According to Owen (1904, p. 139), Mesquakie bows were sometimes sinew-wrapped.

Accompanying this bow are six *arrows* of hardwood, five of which are in exhibit cases. All are fletched with three split and trimmed wild turkey feathers attached, according to the accession notes, with elk horn glue to the long axis of the shaft, about 2 cm below the nock; on two arrows the feathers are spiraled. One arrow lacks a blade and is simply worked to a point at the distal end (34871; Fig. 4d). Three have small, triangular chert blades inserted into a slit and wrapped with sinew (34873-1–3). Two arrows are thickened at the distal end and slit to receive triangular, polished slate blades slightly recessed on both sides and lashed in place with sinew (34872, 34873-4). Sauk arrows with chert heads are illustrated by Skinner (1925, pl. XII). The manufacture of arrows by the Menominee is described in some detail by Hoffman (1896, pp. 275–281). He noted that stone arrowheads were retained by the modern Menominee as amulets.

The collections contain a *glue stick*, with which elk horn glue, for attaching feathers to arrows, was dipped from the container in which it was boiled (34901; Fig. 5e).

A *bowstring*, which, according to the catalog, is made from the "belly of a woodchuck," has a loop at one end tied with strips of buckskin (34976; Fig. 5f).

A *wrist protector*, worn to protect the wrist from contact with the bowstring, is constructed from a rectangular piece of rawhide with buckskin ties. Extending along the center is a row of short, parallel slits, perhaps to give the rawhide more flexibility (34960; Fig. 5g).

A narrow, oblong object identified in the catalog and accession notes as a *shot mould* is made of popular wood. It is notched along one side and has a bulb-like handle. The distal end is split for a distance of approximately 12 cm, and there are deep rectangular depressions on each side; a piece of perforated bark has been inserted between the depressions. The distal end is notched and wrapped with a strip of tanned skin. Jone's accession notes state that "any kind of stick used to rub notched stick to produce vibrations which cause shot to fly out into water." The instrument was used to make buckshot by pouring melted lead into the sieve and letting it fall into cold water (34885; Fig. 89a).

Tools

Tools are also poorly represented in the Mesquakie collections, suggesting that many of those in use at the time the collections were made were

not available to the collectors. Horticultural implements are completely missing. Objects associated with food preparation will be described in the section headed "Household Equipment." The description of an implement as a tool rather than as an item of household equipment is, in some cases, arbitrary.

Following removal from a newly killed deer, the deer hide was first soaked in water for two or three days. The hair was then removed by scraping the hide with a two-handed *beaming tool*, of which there are two in the collections. Both have wood handles into which metal blades are set horizontally. The first has a narrowed grip at each end that terminates in a knob. The thicker section in the center is faceted (34857; Fig. 5d). The second is similarly constructed but lacks the faceted center section, and the knobs at the ends come to blunted points (34858; Fig. 5c). Similar two-handed beaming tools are described for the Sauk (Skinner, 1925, p. 134) and Menominee (Skinner, 1921, pp. 226–227, fig. 16).

A small *adze*, used for making wooden bowls, is in an exhibit case. It has a two-piece iron head with a flat poll and a round eye that contains a short wooden helve. The head slopes toward the handle and the working edge is concave. According to Jones' accession notes, this adze is a "relic of old days of traders" (34886).

A bone *awl*, also on exhibit, is 6.1 cm long and worked on all surfaces. It is worked to a point at one end and a short buckskin thong is attached at the other (34763). Among the Menominee, awls similar to this one were used in sewing leather and in making baskets (Skinner, 1921, pp. 304–306).

Two rib-bone *needles* are rounded at one end and pointed at the other with a perforation approximately 8 cm from the proximal end. The first, which is on exhibit, is 28.5 cm long. The second needle is 22.6 cm long, and both have lengths of twisted fiber cordage attached through the perforations (34890, 34891; Fig. 5a). A third needle is 29 cm long with the perforation 11.5 cm from the proximal end (92036; Fig. 5b). According to the accession notes, these needles were used for making "shelter mats for lodge." Among the Menonimee, similar needles were also used for netting the babiche on snowshoes (Skinner, 1921, p. 307, fig. 52).

A large *perforated scapula* from a cow is described in the accession notes as "for the working of fiber" (34859; Fig. 5h). It is further described as having been lashed to a tree when in use and was "also used for making linden bark thread." According to Lyford (1943, p. 45), the Ojibwa (Chippewa) used a perforated deer scapula for softening linden bark fibers by drawing the fibers back and forth through the perforation until the desired softness was achieved.

The collections contain four *fire drill* sets, two of which consist of four pieces: a fluted or grooved drill shaft of cedar, a rectangular hearth board of the same material (with a socket into which the distal end of the shaft was fitted), a bow of light-colored wood with a string of twisted buckskin, and a rectangular upper piece or hand rest of cottonwood with a socket to receive the proximal end of the shaft (34965-1–4, Fig. 6b–e 34966 1–5). Accompanying one set are pieces of punk that served as tinder. Both fire drill sets are described in the accession notes as "models" and as "unfinished." Neither set appears to have been used extensively, and they probably were made for the collector. The third fire drill set is on exhibit. Its hand piece and hearth board are both roughly worked, while the cedar drill shaft is carefully made; the bow, of light wood, has a string of rawhide (92049-1–4; Fig. 7). The fourth set is incomplete and includes only the hearth board with three sockets and the drill shaft, both of which are made of cedar wood (92050-1, 2; Fig. 8).

An animal's bladder is described in the accession notes as a "*bellows for syringe*" that "lacks bone stem." It is tied off at the neck with a loop of hair (34963; Fig. 6a). Its use is unknown.

Transportation

By the time the Mesquakie had migrated from Wisconsin to the grasslands of Iowa in the 18th century, horses had largely replaced bark-covered canoes and dugouts for transportation (Clifton, 1984). The collections contain two wooden *pack saddles*, both of which show considerable signs of use. Both saddles are constructed from four pieces of wood: two carved pieces for the pommel and cantle, both with flattened, disk-shaped projections; and two rectangular side pieces with rounded ends, to which the pommel and cantle are attached. These four sections were covered with wet hide, buffalo or cow, and were sewn with rawhide cord. As the hide dried and shrank, it formed a tight fit over the wooden saddle parts. Both saddles lack rigging straps, cinch rings, and stirrups. The first has strips of folded buffalo hide

that run parallel beneath the side boards under the saddle structure (34852; Fig. 9a). The second saddle lacks padding of any kind (34851; Fig. 9b). Skinner (1921, pp. 212–213, pl. XLII) illustrated a Menominee pack saddle with the pommel carved to represent the head of a horse. The Prairie Potawatomi also used such a saddle (Skinner, 1926, pl. XIX, 31).

The collections contain five *quirts*, three of which have wooden handles. On the first of these the handle is round with a burned ring near the proximal end and a spiraled ring near the distal end. The leather lash is attached through a hole at the distal end with recessed channels on either side. The lash consists of a single leather strip passed through the hole and through narrow slits in the leather to form a tight fit. There is a rawhide wrist hanger at the proximal end (34833; Fig. 10c).

The wood handle of the second quirt has a wide, spiral groove cut into it from the midpoint to the distal end. The leather lash has a channel attachment similar to that on the previously described quirt and is braided several times near the attachment hole and in the center. There is a rawhide wrist hanger at the proximal end of the handle (34835; Fig. 10e).

The third quirt has a plain, round handle with the lash attached through a drilled hole 2.5 cm from the distal end. The leather lash is braided for about two-thirds of its length. At the proximal end of the handle is a small hole for the attachment of a wrist hanger (92035; Fig. 10b).

A single quirt, in an exhibit case, has an elk horn handle that is worked on all surfaces to form a curve near the proximal end. The braided leather lash is attached to the handle by inserting a folded strip through an opening in the distal end and looping it around a wooden plug driven into a hole drilled vertically through the handle. A strip of tanned buckskin serves as a wrist hanger (34834). This plug attachment method of joining the lash to the handle is described for the Blackfoot by Ewers (1955, p. 98, fig. 17). Skinner (1926, p. 298) noted that the tribal police among the Prairie Potawatomi carried quirts with heavy handles of elk horn, with which they beat offenders.

The handle of the fifth quirt is made entirely of braided leather and narrows at the proximal end; there is no wrist hanger. The leather lash is an extension of two braid elements at the distal end (34831; Fig. 10d). According to the accession notes, this quirt was made by a man named Koepaga.

A boy's *toy dugout canoe* is described here because the collector reported in his accession notes that it is "a good type of large canoe in arrangement of seats and general form." The canoe, made of walnut wood, is pointed at both ends with a hole at the prow for a rawhide tie line. The bottom is flat and the interior deeply dug out, with raised areas for seats at the stern, in the center, and near the bow. The scale is unknown (34856; Fig. 10a).

The manufacture of such a canoe among the Sauk is briefly described by Skinner (1925, pp. 135–136). When a tree was felled, the bark on the upper surface was leveled off as much as possible and then hot coals were placed along its length. When these had died out, the resulting charred wood was scraped away with a mussel shell. It was, Skinner noted, a laborious process. The Prairie Potawatomi are said to have made dugout canoes of cottonwood, but their manufacture is not described (Skinner, 1926, p. 298). Radin's Winnebago informants insisted, despite evidence to the contrary, that dugout canoes were not made until Europeans introduced metal tools (Radin, 1923, p. 123). Hoffman (1896, p. 292, pl. XXXV) illustrated a Menominee dugout canoe and described its construction.

The collections contain a *pack bag with strap* that includes a strip of tanned hide 6.5 cm wide, intended to run across the forehead or the chest. At either end of this strap are attached long rawhide thongs that are intended for lashing around the burden. In this case they are looped around the upper corners of a rectangular bag of diagonally plaited elm bark strips (92058; Fig. 11). At the time of Skinner's fieldwork among the Sauk in 1922 and 1923, pack straps were still used by old women gathering wood (Skinner, 1925, p. 136).

Household Equipment

Household equipment is by far the most abundant category in the Jones and Starr collections. It is probable that many items described under this category were, at the time they were collected, in the process of being replaced by commercially produced products, and thus could be sold to the collectors without causing their owners to experience hardship.

Important household items well represented in

the Mesquakie collections and in material culture assemblages from other Woodland tribes are wooden bowls and spoons or ladles made from a variety of hard woods, which served as food containers and utensils for everyday use and for special feasts. Bowls were also used for dice games, and some of those described here may have served that purpose. All the bowls and ladles described were collected by Jones.

Most bowls were made from large burls or knots, which occur on the trunks of certain hard woods such as ash or maple. Although the dense and curving grain pattern on burls makes them difficult to carve, bowls made from them are less likely to crack or split. Before the introduction of metal tools, wood products were made by charring and scraping the wood with bone and stone implements (Lyford, 1943, p. 31). Presumably the flourishing of bowl and ladle making occurred after metal tools were available, when the curved steel knife could be used to finish the carving and to add sculptured details.

The Jones collection contains 13 *bowls*, all of which have been skillfully constructed and carefully finished. The wood from which they were made is sometimes identified by the collector. Four are oval or round in shape and lack projections along the rim. The first of these, made "probably of soft maple," has relatively thin walls that are cracked in places (34814; Fig. 12c), while the second, of "maple or walnut," is on exhibit, and has a maximum width of 32 cm (34816). The other two are identified in the catalog as children's bowls, although one of them is nearly as large as the largest bowls in the collection (34805; Fig. 12d). The second, "probably of soft pine," is small and shallow (34810; Fig. 13d).

Two bowls have notched projections along one edge. One of these, of "soft maple," is round, and the notched projection is convex in shape (34802; Fig. 12b). On the other the projection is flat across the top, and the bowl is oval and has been repaired with lead (34809). It is listed in an exhibit catalog (Torrence and Hobbs, 1989) with a date of "c. 1850," but there is no explanation for this date.

Three round bowls have raised projections with a pair of notches. The largest of these, made of "soft maple," has a large crack in one side (34800; Fig. 12a). The second, also of "soft maple," is on exhibit and measures 25 cm in diameter (34803). The third, described as a child's bowl, has a crack along one edge (34806).

On three bowls the rim is raised slightly in one place. Two of these are described as children's bowls and are oval in shape. On one the raised projection is flat across the top (34808; Fig. 13c), while on the other the top of the projection is slightly concave (34807). The third bowl, "of walnut," has a rounded projection and deep scratches on the inside just below the rim (34801).

None of the bowls in the collections are characterized by the distinctive anthropomorphic effigy figures that have been described frequently in the literature on Woodland Indian art. Maurer (1986) has suggested that bowls with abstract designs worked in the rim, such as those described here, may represent stylized animals or may symbolize anthropomorphic manitou spirits.

Two small bowls, described in the catalog as "used in preparing medicine," are both on exhibit. One is round and deep, has no projections, and is 8 cm in diameter (34812). The other is round and 7.5 cm in diameter. It has a slightly projecting handle along one side, possibly in the shape of a bird's head (34811; Fig. 14). These small bowls were presumably used by shamans to give medicine to their patients during curing ceremonies.

There are 13 wooden *ladles* of varying sizes in the collections, all of which have shovel-shaped, ovoid bowls and sharply upturned handles that are bent over at the proximal end to form a hook-like projection, perhaps for hanging over the lip of a kettle. Although all but two are identified in the catalog as "spoons," none is small enough to have been used for eating. They probably served to dip broth and meat from a large container.

Five ladles are undecorated and vary only slightly in size but exhibit slight variation in the shape of the handles (34818; Fig. 13e; 34821, 34823, 34824, 34826). A single ladle is identified as a child's and, in addition to being much smaller than the others, has a narrow ridge carved in the handle at the proximal end (34825; Fig. 15f).

The handles of six ladles are decorated with the figures of animals or birds. One has a small, long-tailed animal, possibly an otter, carved in relief on the flat surface of the handle's proximal end (92028; Fig. 15e). It is listed, but not illustrated, in Torrence and Hobbs (1989) with a date of "c. 1850." Another has the figure of a beaver carved in relief in the same location (92029; Fig. 15c). This ladle is illustrated in Torrence and Hobbs (1989, no. 136), where it is also assigned the date "c. 1850." The handle of one ladle is carved to represent the head and neck of a horse. The carving has been skillfully accomplished (34828; Fig. 15b). Torrence and Hobbs (1989) list this ladle

and, without explanation, assign it a date of "c. 1880." Three ladles have handles that terminate in the stylized heads of eagles, as identified in the catalog. One is a child's ladle (34827; Fig. 15d); another, on exhibit, has a bowl 18.5 cm wide (34819); and the third, with a scratched bowl and a highly polished handle, shows considerable signs of use (34820; Fig. 15a). Like three other ladles in the collection, this one is listed by Torrence and Hobbs (1989) and is assigned a date of "c. 1850."

The collections contain two wooden, paddle-shaped *stirrers*. The first, collected by Jones, is large and heavy (34974; Fig. 13a). According to the accession notes, it was used for stirring lye, corn, or maple syrup and goes with a pair of rough utility bags, to be described later. The second stirrer (92030; Fig. 13b), collected by Starr, was obviously used for lighter work like the stirring of food in a large kettle.

A *mortar and pestle*, made of walnut wood, is on exhibit. The mortar is a short, heavy, horizontal log from which a deep rectangular section has been hollowed out with an adze. The outer surface of the log is roughly shaped, the bottom flat, and a short handle extends from one end. There is a double-ended pestle (34964-1, 2; Fig. 16). Horizontal wood mortars and double-ended pestles were in use among the Menominee and Prairie Potawatomi at the time of Skinner's fieldwork before 1920 (Skinner, 1921, p. 303; 1926, pp. 299–300).

An unmodified mussel shell is described in the catalog as having been used to shell corn steamed on the cob (34832).

Widely distributed throughout the Great Lakes area and some of the most useful articles in the material culture inventory of a Mesquakie family were bags woven of natural fibers and wool, which served to contain a great variety of personal possessions. Lyford (1943, p. 81) believed that the first wool bags were probably made of buffalo hair, but commercial yarns and woolen goods made their appearance during the 17th century and were substituted for native fibers. The earliest material was cord made by unraveling blankets and cast-off trade clothing, which was respun and redyed so that it could be used as the weft thread in weaving bags. Local fibers were normally used as the warp (Lyford, 1943, p. 81; Whiteford, 1977, pt. 2, p. 40). The fine yarn that was obtained from traders was twisted into coarse yarn by means of a distaff. Native dyes were used first but were replaced by commercial dyes.

The collections contain three types of woven bags: 1) those woven of coarse cord and fibers that were used, according to the accession notes, for the storage of "rough and soiled material"; 2) utility bags made entirely of natural fibers and useful for storage because of their strength; and 3) soft, decorated bags made from a combination of native fibers and imported materials, used primarily for the storage of personal belongings.

Woven fiber bags were constructed by hanging the prepared warps over a slender stick, which was then suspended horizontally, or warps were sometimes wound around a pair of vertical sticks separated by a slightly greater width than that of the proposed bag. A pair of weft strands were twined across the warps at their midpoint

and were then continued from left to right in a continuous spiral around the loose hanging warps. When the spiraling wefts came to within four or five inches of the warp ends they were tied off. The remaining ends of the warps were gathered into bundles and combined into a horizontal braid which became the upper edge of the bag. When the slender stick was pulled out from between the warps, a seamless bag was ready for use (Whiteford, 1977, pt. 1, p. 59).

The collections contain four *unfinished fiber bags* on the sticks that were part of the weaving frame. They have warp strands of untwisted linden bark and twisted fiber wefts. On two, some of the warps have been dyed green and black to produce vertical stripes. Both these bags have suspension loops attached at either end of the loom sticks, suggesting that the latter may have been suspended from a branch (34797, 34798; Fig. 17b). The other two unfinished bags are constructed of coarser fibers and have a more open-work weave (34799, 92062; Fig. 17a). According to the accession notes, one of these bags was used for preparing corn in lye (34799). The collection also contains a pair of peeled *weaving frame sticks* (34968-1, 2) similar to those in place on the previously described bags.

Three *storage bags* belong to type 1, two of which are woven from coarse linden bark and cord. According to accession information, both of these were used for storing corn prepared in lye, and one is equipped with a tump line of commercial leather (34795; Fig. 18a; 34796). The third rough bag is much smaller and is made from elm bark (92061; Fig. 18c). The rims of all three bags are braided. A fourth storage bag, also with a tump line, is described in the section on transportation (92058; Fig. 11).

Six bags are categorized as type 2, *utility bags*. Two of these are quite large and are woven of linden bark cord and fibers. The warp threads are dyed with native dyes and aniline of various colors, predominantly black, red, green, and orange. A length of braided linden cord is attached to the rim of one bag (34793, 34794; Figs. 19–20). Two bags are somewhat smaller and more elaborately decorated. One has a multicolored, diagonal design. The warps are plaited diagonally and strengthened with wefts of commercial cotton twine (*Art of the Great Lakes Indians*, 1973, no. 383, p. 84) (92059). On the other bag the spaced twined wefts are of nettle fibers. In three bands, vertical strips are created by the warps and the pattern created by double warps of two different colors is twisted, so alternate colors appear on the surface (*Art of the Great Lakes Indians*, 1973, no. 382, p. 84) (92060). Decoration on both bags is with red and green aniline dyes. According to Torrence (1989, pp. 4–5), some color associations refer to clan affiliations. Green was the color of the bear clan and red the color of the fox clan. These colors symbolized the original clans from which leadership was drawn. The fifth utility bag is small and identified in the catalog as a wallet. It is woven of linden bark and wild hemp, with spaced wefts. Alternate warp strands on the front and back are dyed with aniline green (34792; Fig. 18d).

A somewhat different fiber bag of elm bark is constructed of diagonal plaiting but can more accurately be described as a *pouch*, probably used to hold seeds. It is deep and narrow with a braided rim (92045; Fig. 18b).

The soft, decorated wool *yarn bags* belonging to type 3 are constructed of raveled and respun yarn and often include some native fibers. The method of constructing yarn bags differed from that used for making fiber bags.

In making wool yarn bags the warps were hung along a cord stretched around two springy stakes set upright in the ground. When the wefts were twined around the hanging warps a flattened cylinder was formed, open at both ends. This was slipped off the stakes and sewn across the starting end to form the bottom of the bag. Thus fiber panel bags are seamless; wool bags generally have a seam along the bottom (Whiteford, 1977, pt. 2, p. 41).

A Menominee woman weaving a yarn bag is illustrated by Skinner (1921, pl. LIII).

Most wool yarn bags are decorated, usually with horizontal bands of geometric figures. There are usually three or four broad bands separated by one or more narrow bands. The intricate twining techniques used in the manufacture of wool yarn bags are described in detail by Whiteford (1977, pt. 2).

The Jones collection contains 16 *yarn bags*, including one that is unfinished. These are described in his accession information as having been used for "storage of personal belongings, sewing materials, medicines, clothing, etc." Jones noted that the "purely decorative" designs on the bags have pattern names, but that some have become so stylized that the names cannot be readily recognized. In his accession notes for each bag, Jones gave the pattern names when he could learn them from his informants. These designs include "spiderweb," "corn," "oak," "worm," and "cosmic world," as well as animal and human figures. Jones made no attempt to interpret the meanings of these pattern names, and it appears that some take more than one form.

Of the 15 complete bags to be described below, 14 have different designs on each side, while on one the designs are the same on front and back. Since each bag in the collection is stylistically unique, they will be described individually. All show indications of use, some more than others. For an interesting discussion of representational and abstract geometric imagery on twine bags of the Great Lakes Indians, see Phillips (1989, pp. 53–68).

34777—A large bag made of blanket ravelings and native hemp, the latter occurring on both warp and weft strands. The colors are red, black, and green, with a different form of stylized bird design on each panel. There are vertical bands of straight and slanted lines along the sides (Fig. 21).

34778—This bag, also made of blanket ravelings and native hemp, has stylized birds on one panel and cosmic world designs in parallel bands on the other (Fig. 22). The designs on both panels are in black, with vertical bands of red along the sides. According to the accession notes, this bag was called a "black bag."

34779—Blanket ravelings in black, red, gray, light brown, and orange were used in the construction of this bag. On one panel there are bands of worm and spiderweb designs near the border (Figs. 23–24), while on the other there is a band of bird designs just below the rim. The accession notes refer to corn designs and "others that are purely decorative."

34780—A bag made entirely of blanket ravelings in gray, black, brown, and red colors. There

are a variety of geometric designs on both panels, possibly including birds and spiderwebs (Figs. 25–26).

34781—This bag, which is on exhibit and is of particularly fine workmanship, has bird and spiderweb designs on one panel and birds on the other. The construction is entirely of blanket ravelings and the colors are orange, black, and green.

34782—Another bag on exhibit that is constructed of blanket ravelings. The geometric designs are in red, black, and gray colors.

34783—A bag constructed of commercial yarn and twine. Along the sides on both panels are vertical bands with geometric designs in black, green, red, and blue colors. The broad horizontal bands on one panel are decorated with geometric designs in black. On the other panel are five rows of animals, probably deer, in black (Figs. 27–28).

34784—A bag woven of commercial yarn and twine in brown, red, black, and purple colors. There are bands of worm designs on both panels and corn designs with a variety of geometric constructions, also on both sides (Figs. 29–30).

34785—Constructed entirely of black, red, orange, and yellow yarn, this colorful bag has bird and worm designs in bands on one panel and bands of spiderweb designs on the other (Figs. 31–32).

34786—A very wide bag of commercial yarn and twine with vertical bands in red, brown, and black colors along the sides. The large central panel on one side has stylized birds and spiderwebs in black along the bottom. On the other side, also in black, are "conventionalized figures" (Figs. 33–34).

34787—A nearly square bag made of blanket ravelings and yarn. The colors are yellow, black, orange, red, blue, and purple. There are spiderweb and worm designs on one panel with worm and corn representations on the other (Figs. 35–36).

34788—A bag made of blanket ravelings, commercial yarn, and twine. According to the accession notes, there are spiderweb and bird representations on the identical panels. The colors are light brown, dark brown, orange, and red. A narrow strip of leather is attached to the center of the rim (Fig. 37a).

34789—A very small rectangular bag, possibly a medicine pouch, is on exhibit. It is constructed of native hemp and blanket ravelings. There is the figure of a deer on one panel and a human on the other. Along the sides are "conventionalized figures." The colors are black, gray, and red.

34790—A small bag constructed of linden bark cord and yarn. The primary decorative motifs are rows of horses and deer on both panels. On the sides are vertical rows of geometric designs and men. The yarn colors are red, brown, green, blue, and yellow. Strands of red, green, and purple yarn are suspended from the rim (Figs. 38–39). This bag is listed in Torrence and Hobbs (1989) but was not illustrated. The listing gives a date of "c. 1890," and the bag is identified as having been made by "A SKI BAQUA (Mrs. Joseph Tesson)." It is illustrated in *Art of the Great Lakes Indians* (1973, p. 85).

34791—A very similar bag of the same size and utilizing the same materials and colors. There are rows of stylized birds on one panel and deer on the other. On the sides are vertical rows of geometric designs (Figs. 40–41).

92046—A small, unfinished commercial yarn bag with warps and wefts of green, purple, red, and yellow (Fig. 37b).

The collections contain what the catalog describes as a "*head wrap loom*" that consists of four peeled sticks. The two longer sticks are approximately 1.5 cm in diameter, 102.5 cm long, and worked to a point at one end. The shorter sticks are .5 cm in diameter and 56.5 cm long (34967-1–4). It is difficult to determine how these sticks may have been used. According to Lyford (1943, p. 71), among the Ojibwa, the yarn for weaving a sash was wound around two sticks stuck into the ground at an interval that would provide strands of the desired length. The two pointed sticks may have been used in this manner. For the Menominee, Skinner (1921, pl. LVII) illustrated women weaving sashes. One end of a sash is shown attached to a long stick inserted in the ground. The picture is not clear, and Skinner gave no additional information. As for the two shorter sticks, they appear to resemble the previously described slender, horizontally placed sticks used in the construction of fiber bags.

Indians of the Great Lakes region produced varieties of square weave with the aid of a wood heddle, which was frequently of elaborate construction and decoration. A heddle has a number of equally spaced bars between which one series of warp threads are passed. Another series passes through small holes in the center of each bar. This series of warp threads is in a fixed position, while those that are inserted between the bars are free to slide up and down. When the warp is taut, one series is above the other and there is space for the passing of a shuttle conveying the weft threads. According to Orchard (1975, pp. 113–114), dec-

orated wood heddles were introduced by the Jesuits or by early French traders.

The Mesquakie collection contains three wood *heddles*. The first of these is virtually round and is made from a single piece of wood, with raised ridges on both sides that define the upper and lower limits of the evenly spaced bars. The row of holes in the bars is placed slightly above the center. At the top is a suspension hole and a strap of tanned skin (34855; Fig. 42).

The second heddle, which is on exhibit, is rectangular and rounded at the top, where there is a suspension hole. On this heddle, the two series of warp strands, of commercial brown thread, are in place. The decorative designs above and below the spaced bars are incised and there is no use of color (92048; Fig. 43).

The third heddle, also on exhibit, is rectangular and worked to a point at the upper end, where there is a suspension hole and a loop of rawhide. The warp strands appear to be commercial white thread. As exhibited, the warp strands are drawn tight at both ends and a short section of beadwork is shown, consisting primarily of squares in red and white beads. There appears to be no decoration on this heddle (34854). Mesquakie wooden heddles similar to those described here are illustrated by Torrence and Hobbs (1989, nos. 155, 157, p. 131).

The collections contain six *baskets* made of linden splints. In making plaited baskets, a flexible weft element is passed alternately over and under stiff warp elements completely around the basket, a procedure that is repeated until the basket is completed. Three baskets in the collection are unfinished and show the method of manufacture. One of them is a slightly less than half-finished oval container (34847; Fig. 44b). The other two are, according to the accession notes, "child's work," and have only a single weft strand; when complete they would be small and round (34848, 34849; Fig. 45a). Two completed "new" baskets are oval with reinforced rims wrapped with a flexible linden splint (34845, 34846; Figs. 44a, 46b). The seventh basket is the largest and is described in the accession notes as "old." According to the catalog, parallel bands of weft splints are dyed green and purple, but these are now faded (34844; Fig. 46a). Skinner (1921, p. 293) noted that basket-making among the Menominee was a recent innovation introduced by the Oneida and Stockbridge Indians from the East.

Rush mats, woven from bleached and dyed bulrushes, were made by all the tribes of the Great Lakes area. In the lodges they were used as rugs, hung up to serve as partitions, and spread out on sleeping platforms or as tables on the floor (Lyford, 1943, p. 90; Whiteford and Rogers, 1994, p. 59). Some mats were also used during rituals as consecrated surfaces on which sacred bundles were placed to be opened and honored (Peterson, 1963, pp. 249–250). According to Torrence (1989, pp. 6–9), most designs on rush mats are geometric, but those displaying figurative imagery such as deer, underwater panthers, and thunderbirds were used exclusively during ceremonies, particularly during those of the Midé society.

Before the weaving of a mat could begin, rushes had to be gathered, bleached, dried, and dyed. Also, fiber cord was prepared and needles were manufactured. When these preparations had been made, a frame loom was erected on which to weave the mat. This frame consisted of a horizontal pole supported on either side by a vertical pole. Because it was necessary to keep the rushes damp while the weaving was in progress, the frame was set up outdoors in a shaded area (Skinner, 1921, pl. LXVIII; Lyford, 1943, pp. 88–89, pl. 48).

According to Lyford, when a rush mat was constructed, a two-ply cord of basswood was first measured to equal the length of the mat. Then the ends of the rushes were turned down and twisted onto the cord to prepare a firm edge. The cord, with the rushes attached, was then fastened at intervals along the weaving frame's horizontal pole.

> The hanging rushes formed the warp of the mat. Basswood twine was used for the weft. The weaving progressed downward. No shuttle was used. The weaver carried the ball of twine in one hand and seperated [*sic*] the rushes with the other so that the twine could pass between them. Sometimes two wefts were used, one on either side of the warp. The wefts were passed around each warp and twined together, thus each weft passed from the front to the back of the mat and vice versa. . . . When the mat was finished, the lower end was "bound off" by turning up the ends of the rushes and fastening them as they had been fastened to the cord at the upper end (Lyford, 1943, pp. 89–90).

The designs on mats were achieved with the use of dyed rushes, usually woven with a warp face technique (Whiteford and Rogers, 1994, pp. 61–62, fig. 5). The oldest mats were decorated with native dyes, with various shades of red, brown, and black being the predominant colors. By the late 19th century weavers were using commercial aniline dyes that produced a more varied range of colors (Torrence, 1989, p. 7).

The dome-shaped lodges used by the Mesquakie and their neighbors were covered with large mats made of cattails (Figs. 2, 47). In manufacturing these mats, the cattails were attached to a cord in much the same manner as when making rush mats. Basswood fiber was threaded into a long bone needle like those previously described in the section on tools and was passed horizontally through the cattails at intervals of 20 to 25 cm. The cattails were lapped so that the threads did not show. Cattail mats were made in a variety of sizes, and among the Menominee, eight were required to cover a winter dwelling. The largest mats were intended to enclose the circumference of the lodge at its base. On these mats the lower end of the warp was often left unfinished, and thus only one side had a selvage. A mat so constructed could more easily rest in an upright position against the sides of the lodge (Skinner, 1921, p. 245; Lyford, 1943, pp. 90–91).

The Mesquakie collections contain a single *cattail mat* which measures 125 cm × 215 cm, not large enough to have been used alone around the circumference of a lodge. It has a single selvage, and the weft threads of twine are passed through the individual warps at intervals of 16 to 19 cm (34929; Fig. 48). Obviously, this could not have been achieved with the needles previously described. This mat is identified in the accession notes as having been used for drying corn.

Although this mat was probably not used as a house covering, at one time the collection contained 11 mats that are identified in the catalog as having been used "for lodge." They have been either "disposed" or are simply unaccounted for (see Appendix 2). Although all these mats are described as "rush mats," including one that served as an "outer doorway" and another as the roof, it seems likely that they were, like the mat just described, also listed in the catalog as being made of rushes, while they were actually constructed of cattails.

The collections contain eight *rush mats*, each of which is distinctive; they will be described individually.

34991—This mat is unfinished and is attached to the horizontal pole of a weaving frame with strands of basswood fiber at approximate intervals of 3.5 cm. Geometric designs have been produced with native-dyed brown and black rushes (Fig. 49).

34930—A large, rectangular mat, measuring 104 cm × 203.5 cm, woven with linden bark cord. The geometric designs in black, purple, and green are grouped so as to form broad vertical stripes across the surface. This mat is illustrated in *Art of the Great Lakes Indians* (1973, no. 314, p. 72) where, for an unexplained reason, it is listed as collected by Alfred G. Heath (Fig. 50).

34931—Woven with linden bark cord, the dimensions of this mat are 105 cm × 207 cm. The geometric designs, mostly diamond shapes in black, green, and purple pigments, are arranged across the mat in broad vertical stripes (Fig. 51).

34934—This mat is woven with commercial twine and measures 95 cm × 177 cm. The geometric designs along the borders are in green and purple colors. Four panthers in black, their long tails curving back over their heads, are woven into the center section (Fig. 52). They do not show clearly in the photograph. This mat is illustrated in *Art of the Great Lakes Indians* (1973, no. 310, p. 71).

92054—A large mat, 105 cm × 201 cm, woven with nettle fiber cord and colored with commercial dyes. The decorative composition consists of vertical interlocking chevron motifs that converge and overlap to form smaller diamonds and triangles. The predominant colors are red and green. This mat is illustrated in color in Torrence and Hobbs (1989, no. 4, p. 121) and in Whiteford and Rogers (1994, p. 61, fig. 4). In reference to it, Torrence (1989, p. 7) wrote,

> The weaving technique allows the artist to include a subtle horizontal banding of colors within the design units by which middle tones and optically mixed subdued colors are achieved, thus creating the illusion of transparency of the major banded design elements.

34989—A mat woven with nettle fiber cord and colored with native dyes. It measures 96 cm × 181.5 cm. The predominant colors are red and brown, the red being confined to the borders. Three rows of deer are depicted extending across the center panel and the borders. This mat is illustrated in color by Torrence and Hobbs (1989, no. 2, p. 121).

34990—This mat, woven of nettle fiber cord and colored with native dyes, measures 86 cm × 167.5 cm. Like the previously described mat, the predominant colors on this one are red and brown. Four panthers are depicted in the center panel, and there are stylized figures on the borders. This mat is illustrated in color by Torrence and Hobbs (1989, no. 1, p. 121) and by Whiteford and Rogers (1994, p. 65, fig. 10).

Writing with reference to these two mats, Torr-

ence (1989, p. 7) noted that they are "considered by many authorities to be the finest Great Lakes mats in existence." His analysis concludes as follows:

> Rows of deer establish a rhythmic pattern of movement across the field of one mat; two pairs of underwater panthers on the other create a design that seems to radiate concentric movement from within. The angular figures are conventionalized to fill the space of the mats in the same way that the presence of these powerful Manitous are believed to fill the Mesquakie world–hovering at the edge of visible reality, all-powerful and ever-present.

Painted and folded rawhide trunks were made by the Indians of the western Great Lakes region. They were used to store not only clothing and personal belongings but also sacred medicine bundles. Torrence (1989, p. 73) has noted that most of the rawhide trunks in museum collections were obtained from the Mesquakie in Iowa. He believed that they may have originated this form in the early 19th century. As a possible source of their inspiration, he suggested either the folded birch bark containers made by all the Great Lakes tribes or the early eastern Plains parfleches. According to Skinner (1926, p. 297), among the Prairie Potawatomi, rawhide trunks were made and decorated by women. The Field Museum's collections also contain trunks from the Kickapoo and Winnebago.

Rawhide trunks were constructed from a single piece, cut so that the sides extended from the bottom and the top was formed from an extension of one side. The overlapping sides were then sewn together. Painted designs were executed on the piece of rawhide before it was folded. These paintings "were composed of abstract geometric motifs, both straight-edged and curved, organized into complex compositions based on a repetition of similar elements" (Torrence, 1989, p. 25).

The Mesquakie collections contain eight *rawhide trunks*, all of which are rectangular in shape and made from a single piece of rawhide. All show signs of considerable heavy use. Although red and black are the predominant colors, other colors are used sparingly. These trunks will be described individually.

34836—This trunk is made of cowhide and sewn up the sides with sinew. The decorative motifs, mostly rectangles and triangles, are in red and black. The bottom, most of the back, and about two-thirds of the flap are undecorated (Fig. 53).

34837—A trunk of buffalo hide currently on exhibit. It is decorated on all visible sides with geometric designs in red, black, and yellow pigments.

34840—An undecorated trunk of rawhide sewn up the sides with commercial twine.

34841—This cowhide trunk, sewn horizontally on the sides with rawhide, is decorated with geometric designs in red, black, yellow, blue, and green pigments. In the center on the front and back are Maltese cross designs in black pigment (Fig. 54). This trunk is listed but not illustrated in *Art of the Great Lakes Indians* (1973, no. 409, p. 89).

34842—A cowhide trunk on exhibit. Like most of the others, it is sewn up the sides with strips of rawhide. The geometric motifs, spurred bands, triangles, and inverted spurred triangles are in red, black, yellow, blue, and green pigments (Fig. 55). This trunk is illustrated in *Art of the Great Lakes Indians* (1973, no. 408, p. 89) and listed but not illustrated in Torrence and Hobbs (1989, no. 183, p. 133).

34843—This cowhide trunk, sewn horizontally on the sides, is painted on all surfaces in red, black, green, and yellow pigments. Diamond shapes and elongated triangles predominate (Fig. 56).

34902—A trunk with extremely well-preserved colors. Diamonds and triangles are painted on all surfaces in red, black, and green pigments (Fig. 57). It is listed but not illustrated in Torrence and Hobbs (1989, no. 185, p. 133), where it is dated "c. 1870."

92012—This trunk, sewn up the sides with strips of rawhide, has a variety of geometric motifs on all surfaces, including elongated and spurred triangles and bands of straight and curved lines, in red, black, green, and yellow pigments (Fig. 58). It has been heavily restored.

In addition to these trunks, the collections contain a *pack strap* of buffalo hide for wrapping a rawhide trunk (34839; Fig. 59b).

The Mesquakie collections contain two *cradles*, both of which are on exhibit. Like those of other Woodland tribes, these cradles consist of a board back with narrow detachable sides and a foot rest. A wooden bow projects over the head to support a canopy and also to protect the child if the cradle should be dropped. The child is held in the cradle by wrapping that extends around the board. Beads, bells, or thimbles are usually suspended from the front of the bow; their movement protected the child from insects and also attracted its attention. Among the Menominee, a child usually

remained in its cradle until it was at least two years old (Skinner, 1921, pp. 214–215, pl. XLIV).

The first cradle has a padded headrest covered with patterned cotton cloth. Suspended from the bow are rows of large blue beads and small brass bells strung on commercial twine (92047; Fig. 60). The second cradle is more complete. It also has a padded headrest wrapped with cloth. The frame is wrapped with broad strips of cloth and wool stroud, held in place with small silver brooches and long strands of red yarn. Woven strands of pink, blue, and black beads are suspended from the bow, and a beaded strip extends the length of the cradle, from the bow to the back board below the foot rest. Inside the cradle is a small pillow and a sack for the navel cord, which, according to the accession notes, is disposed of when the child leaves the cradle. Also within the cradle is cotton sheeting, which kept the baby warm (34853).

A *dish for maple sap*, also on exhibit, is made from a single rectangular piece of linden bark gathered at each end and wrapped with strips of cloth; the dish is approximately 28 cm long (34971). A similar dish for sap, used by the Menominee, is illustrated by Skinner (1921, pl. XXXIX).

According to Owen (1904, p. 28), the Mesquakie smoked tobacco mixed with red willow bark and the leaves of the creeping wintergreen; this mixture is referred to as "kinikinik." This name was also known to the Prairie Potawatomi (Skinner, 1926, p. 287) and to the Menominee, whose mixture could also include dried sumac leaves. Skinner (1921, pp. 358–359) doubted that the name was "aboriginal in the language of this tribe." According to Hodge (1910, pt. 1, p. 692), however, the word is derived from Chippewa and means "(what) is mixed by hand"; apparently the term is widespread in Algonquian languages.

In preparing kinikinik, the nontobacco ingredients were first dried over a fire. For this purpose the collections contain a wicker *frame for drying kinikinik*, which consists of a rough framework cut from a crotched willow sapling, across the extended arms of which is woven a coarse matting of willow twigs and roots (34973; Fig. 61). Accompanying this drying frame is a small package of "the inner scrapings of red willow bark for 'kinikinik' " (34975). A similar but even more crudely constructed Menominee drying frame is described and illustrated by Skinner (1921, p. 359, pl. CII).

The Jones collection contains six wood *pot hooks*, described in the catalog as "lodge hooks," from which kettles were hung over the lodge fireplace. These hooks are simply crotched sapling branches, which vary considerably in size and in the extent to which the natural hooks have been modified by human workmanship; all are illustrated (34861–66; Figs. 45b–e, 59a, c). A Menominee wooden pot hook is described and illustrated by Skinner (1921, p. 102, fig. 1).

Clothing

Woodland Indians have not worn native dress for a long time, and information in the literature on traditional and modified traditional clothing is limited. One exception is Skinner's study of Menonimee material culture (1921), which will be the most important comparative source for this section. Although details are lacking, the basic apparel of Mesquakie men before the appearance of Euro-American clothing consisted of leggings, breechcloth, moccasins, and a robe or blanket. Women wore a trade cloth skirt and blouse, leggings, moccasins, and a blanket or shawl. For men, this basic assemblage was augmented by a headdress, armbands, a bear claw necklace, a belt, and one or more pouches or shoulder bags (Torrence, 1989, p. 17).

The Mesquakie collections contain a considerable variety of clothing, but of particular interest are four complete or nearly complete "suits" of undecorated, tanned buckskin collected by Jones, which include garments for a man, woman, boy, and girl; these will be described first. Some would appear to be the garments made for Jones by elderly women using buckskins sent from Chicago by Dorsey (see Introduction). A few, however, show considerable signs of wear.

The *man's suit* includes a coat, breechcloth and belt or waistband, leggings, and moccasins. The coat reaches to the knees and opens down the front. The back is a single piece, as is each side of the front; each sleeve is also a separate piece. Fringed strips are sewn into the side seams, and there is a separate notched collar. At the neck are three ties with wood pegs as buttons. Sewing throughout is with sinew (34935; Fig. 62a). The breechcloth is simply a roughly rectangular piece of hide, approximately 106 cm × 30 cm, which was held in place by a narrow belt or waistband of buckskin (34940-1, 2). A breechcloth was made to pass between the legs and over the belt, leaving an apron in front and back. The leggings

for this suit are exhibited on a manikin, and it is impossible to examine them in detail. They appear to be made from single pieces without fringes and to extend from the ankles to the crotch (34936-1, 2). The moccasins are each made from a single piece, with a straight heel seam and a puckered seam running over the toe. Two short trailers protrude from the base of the heel seam, cut from the edges that are brought together in the heel seam. There are wraparound ties attached at the proximal end of the toe seam (34937-1, 2; Fig. 62b). This style of moccasin conforms to Hatt's Series I (1916, pp. 153–159). Among the Menominee, this style was considered traditional, and Skinner (1921, p. 117) was unable to obtain examples.

The *woman's suit* consists of a short jacket, skirt, belt, leggings, and moccasins. The jacket is constructed of a single back and front piece with a separate collar. Each sleeve is also a separate piece. On either side of the opening in front are rows of slits and buckskin ties (34946; Fig. 63a). The skirt, made from two pieces, is rectangular and flares slightly at the lower edge (34947; Fig. 64a), and the belt is simply a narrow strip of buckskin (34950). The knee-length leggings are made from single rectangular pieces sewn so as to form narrow flaps along the side. The leggings flare slightly at the upper end (34948-1, 2; Fig. 63b). The moccasins (34941-1, 2) are identical to the previously described pair and thus conform to Hatt's Series I (Hatt, 1916, pp. 153–159). Sewing throughout is with sinew.

A *boy's suit* includes only a coat, belt, and leggings. Like the previously described woman's coat, the front and back of this one are cut from a single piece with a rounded bottom edge. There is a separate collar, which forms a hood. Each sleeve is a separate piece, sewn so that there are a pair of narrow flaps extending from the shoulders to the cuffs. There is a pair of buckskin ties at the level of the armpits (34941; Fig. 65b); the belt is a plain strip of hide (34944). The knee-length leggings are sewn to form a pair of narrow flaps that extend about three-quarters of the length, and at the lower edge are small, single flaps. These leggings widen at the upper end, where there is a single tie for attachment to the belt (34942-1, 2; Fig. 65c). In the illustration the leggings are reversed; the flaps were worn on the outside.

In addition to the boy's suit, the collections contain two buckskin *boy's coats*, both of which have short fringes sewn into all the seams as well as fringed lower edges. On one, the front and back are two identical pieces sewn together down the back. Each sleeve is a separate piece, with a small gore at one shoulder and another under one arm. A triangular flap is attached on the neck at the back. There are a series of buckskin ties down the front (34897; Fig. 65a). On the second coat, the back is two pieces joined down the center. Each side of the front is also a separate piece, as are the sleeves. Buckskin ties are missing, but there is a single glass button. On this coat the fringe around the lower edge is a separate piece, sewn on with thread (34898; Fig. 66a).

The *girl's suit* includes a very short jacket, skirt, belt, leggings, and moccasins. The entire jacket, including sleeves, is constructed of a single piece, sewn up the sides and along the sleeves. The lower edge is cut straight, and there is a short V-shaped collar on the back. A pair of ties are located at the neck and at the level of the armpits (34953; Fig. 66b). The belt, like the others, is a narrow strip of buckskin (34957). The skirt flares toward the lower edge and is cut straight. Most of it consists of a single piece, but there are three irregularly shaped pieces that fill out the center portion, one of which extends above the upper edge and is perforated, possibly for attachment to the belt (34954; Fig. 64b). The knee-length leggings, which flare toward the top, are similar to those previously described but have a narrow, single flap running the entire length. At the upper end of the flap is a pair of perforations, possibly for ties (34955-1, 2; Fig. 66c). The moccasins (34956-1, 2; Fig. 67b), like those previously described, belong to Hatt's Series I (Hatt, 1916, pp. 153–159).

Mesquakie women braided their hair in a single plait, which was folded back and wrapped with an oblong cloth wrapper, from which hung swinging pendants of woven beads. The collections contain five *head wrappers*, all of which are on exhibit. They consist of rectangular pieces of black cloth, approximately 10 cm × 30 cm, on which are sewn pairs of beaded panels with designs including spiderweb, corn, and worm, among other geometric representations in red, yellow, green, white, blue, and black beads (34903, 34904, 34981, 92004, 92005). Similar wrappers for the Menominee and Sauk are illustrated by Skinner (1921, pl. XXV; 1925, pl. XIX, pp. 3–7).

Unfortunately, most of the beaded *pendants* associated with the hair wrappers are in exhibit cases (92017, 92018, 92021, 92037). Available for study is a single hair ornament tie and a tie with pendants. The beaded tie is woven on thread

that is braided at the ends where the pendants would be attached. The beaded decoration consists of geometric designs, predominantly diamond-shaped, in red, yellow, light blue, dark blue, and pink beads on a white background (92020; Fig. 68b). The other tie is similar, with beaded decoration in the same colors, which emphasizes stepped designs. The pendants consist of small white beads woven on the bias, with red yarn tassels at the ends (92015; Fig. 68d). Complete hair ornaments of the Sauk and the Menominee are illustrated by Skinner (1925, pl. XIX, pp. 7–8; 1921, pl. XXV), while Torrence and Hobbs illustrate those of the Mesquakie (1989, nos. 84–85).

The collections contain a *man's belt* consisting of five strips of heavy twine wrapped with beads in a variety of colors. Four of these strips are attached in pairs with short strips of red and black cloth to the fifth strip which forms a loop. The ends of the four strands are ornamented with yarn tassels (34907; Fig. 69a).

There are four yarn *sashes* in the Mesquakie collections, woven by a loomless technique that resembles plaiting. One sash is unusual because of its considerable length and width. It is woven in an arrow pattern with red, blue, green, yellow, and purple yarn (34899; Fig. 70). This sash is illustrated in *Art of the Great Lakes Indians* (1973, no. 45, p. 173).

The other three sashes are much narrower. The first is woven of red and purple yarn. The borders and center design elements resemble spurred lines (92009; Fig. 71). The second is woven of red and light blue yarn, with a blue spurred line running down the center. A number of unwoven strands are strung with small white beads (92010; Fig. 69b). The third sash is woven of red, green, and purple yarn, with a design that emphasizes diamond shapes. The trailers are braided, and beads in the same colors as the yarn are sewn into them in such a manner that there are two parallel rows down the center and a row along each edge at right angles to the others (92011; Fig. 69d). Yarn sashes were intended to be wrapped around the waist and tied so that the braided ends hung down at the hip. They could also be wrapped around the head as a turban. Sashes were worn both ways by the Menominee (Skinner, 1921, p. 109). A large Mesquakie yarn sash ornamented with white beads is illustrated by Penny (1992, pl. 9).

A loom-woven *shoulder sash* has worm, corn, oak leaf, and a combination of corn and oak leaf designs in pink, green, dark blue, red, and light blue beads on a background of white beads. The entire sash is edged with a row of clear beads. At either end are short strands of twine, presumably to assist in holding the sash in place on the wearer's shoulder (34908; Fig. 69c).

A pair of hip-length buckskin *man's leggings* widens at the top, where there are a pair of ties for attachment to a belt; there are fringed and notched flaps at the bottom. A long fringe, including four notched flaps near the hip, is sewn into the seam and extends the length of the leggings. A rectangular beaded strip, the beads sewn on a strip of red wool stroud covered with black cotton cloth, is sewn along the seam. The decoration consists of pairs of worm designs in pink, white, light blue, dark blue, and purple beads (34896-1, 2; Fig. 72). Accession notes accompanying these leggings indicate that they belonged to Chief Pouting Head, described as the last Mesquakie warrior who helped to drive the Sioux out of Iowa. They are listed but not illustrated in Torrence and Hobbs (1989, no. 72, p. 125), where they are dated "c. 1885."

In addition to the moccasins already described as part of complete or nearly complete clothing assemblages, the collections contain four pair and two single *moccasins*. Although all of them conform in design and construction to Hatt's Series I (Hatt, 1916, pp. 153–159), they have ankle flaps that are cut more to a point in front. For the most part, sewing is with thread. Unlike those described earlier, these moccasins have beaded and cloth decoration and will be described individually.

34906-1, 2—On these women's moccasins, currently on exhibit, the toe seam and the ankle flaps are covered with beaded panels worked on separate pieces of wool cloth. Spiderweb and worm designs are worked in red, white, blue, and green beads. There is a pair of buckskin ties at the proximal end of the toe seam (Fig. 73b).

34905-1, 2—A pair of woman's moccasins with beaded panels, sewn on separate pieces of dark cloth edged with red cloth, covering the ankle flaps. There is no beadwork over the puckered toe seam. Spiderweb designs are rendered in dark blue, light blue, green, white, purple, and red beads. Although the designs are the same on both moccasins, there are two different color arrangements, both of which are used on each moccasin. Buckskin ties make it possible to tighten the moccasins at the instep (Fig. 73a).

92023-1, 2—The ankle flaps are edged with cotton cloth, one black and the other red. This is the only decoration on these moccasins. There are

buckskin ties at the instep. These moccasins show considerable wear (Fig. 74a).

92022-1, 2—The beadwork on these moccasins is sewn directly on the buckskin with an appliqué or spot-stitch technique. Spiderweb designs in blue and yellow beads cover the toe seam. The ankle flaps have rows of triangles in red, light blue, and dark blue beads on backgrounds of dark blue and light blue. The flaps are edged with single rows of white and dark blue beads, and the heel seams are covered with rows of pink and dark blue beads (Fig. 67a).

34982—A single moccasin has broad, sharply pointed ankle flaps. The flaps and the toe seam are ornamented with oak leaf designs in black, red, green, white, yellow, blue, and clear beads (Fig. 74b). This colorful moccasin is checklisted in Torrence and Hobbs (1989, no. 78, p. 126), and its decoration would appear to be representative of the Prairie style that emerged during the 1850s and 1860s in the territories just west of the Mississippi River. This style is characterized by "closely packed design elements" and "hot color combinations" (Penny, 1992, pp. 114–119).

34983—A badly worn child's moccasin, patched with commercial leather at the toe and heel. The toe seam is not puckered. The ankle flaps are covered with thread-sewn floral and oak leaf designs in red, white, yellow, light blue, dark blue, pink, and brown beads (Fig. 74c). This decoration would also appear to be in the Prairie style.

Beaded garters, ornamental rather than functional and worn by men, were tied outside the leggings below the knees. The collections contain three pairs of beaded *garters*. The first pair has a variety of geometric designs woven in red, dark blue, light blue, white, and yellow beads. The ends of the warp threads are gathered and wrapped around strands of blue yarn to form trailers (92006-1, 2; Fig. 68a). The second pair, much narrower, is woven of red yarn warp strands, which are gathered and braided to provide ties at either end. The geometric beaded designs are in white, dark blue, and light blue beads (92016-1, 2; Fig. 68c). The third pair of garters, on exhibit, is also woven of red yarn and has geometric designs, mostly stepped squares, in white, red, and blue beads (92007-1, 2).

Since knives were carried by both men and women and were worn on the person in sheaths, the single *knife and sheath* in the collection is described with clothing. The knife would appear to be of the usual household type used by women for a variety of activities in the preparation of food. The simple, undecorated sheath, with a loop for attachment to the belt, also suggests a utilitarian function. The knife itself is a commercial implement that has a wood handle with decorative metal inlays at either end (34951-1, 2; Fig. 75i). There is some indication that this knife and sheath were collected as part of the previously described woman's suit. Among the Menominee a man's knife was primarily a fighting weapon and was kept in an ornamented sheath. It was worn over the chest for easy access (Skinner, 1921, pp. 319–320).

Personal Adornment

Decorative ornaments of sheet silver or German silver, an alloy of copper, zinc, and nickel metallurgically defined as containing no silver, were significant items in commercial trade in eastern North America between 1760 and 1850. Since Indians of the western Great Lakes greatly desired them in exchange for their furs and services, traders became increasingly aware of the necessity of including items such as brooches, armbands, bracelets, and finger rings in their trading inventories. The Mesquakie collections contain all these categories of decorative ornaments. By the late 1830s and early 1840s German silver had largely replaced sheet silver for the manufacture of trade ornaments. At least some of the ornaments described here may have been produced locally by native smiths.

There are 29 disk *brooches*, three of which are on exhibit. Five are decoratively perforated with symmetrical arrangements of oval, triangular, diamond-shaped, cross-shaped, and semilunar perforations. All are slightly concave on the underside and lack tongues for fastening to the garment (92068-7; Fig. 75b). Two heavier, flat brooches also lack tongues. One is plain except for incised lines around the edges and around the opening in the center (92068-4; Fig. 75d). The other is decorated with rocker-engraved curved and beaded lines (92068-2; Fig. 75c). Brooches of this type were worn on the chest.

Twenty-two round or ring brooches are small, concave on the underside, and possess a tongue for fastening to the garment (92069-3, 17; Fig. 75f, h). One of these is slightly smaller and is decorated with round perforations and stamped designs (92069-20; Fig. 75g). Another is much

smaller and the tongue consists of a piece of wire (92069-22; Fig. 75e).

A single brooch is beaded around the edge, has four triangular perforations around the center, and has a row of V-shaped stamps just inside the edge. The tongue is missing, but there is a short length of buckskin knotted through the triangular perforations (34919; Fig. 75a). According to the accession notes, this brooch was worn at the neck or breast by a man. A Mesquakie cotton blouse adorned with perforated brooches of several sizes is illustrated by Torrence and Hobbs (1989, no. 102) and is dated "c. 1890."

The collections contain four *bracelets*, three of German silver and one of brass. Two of the German silver bracelets are a pair, ornamented on the outer surface with incised symbolic designs (34916-1, 2; Fig. 76a). These bracelets may have been manufactured locally. According to Owen (1904, pp. 61, 99–100), all silver was associated with spiritual power, but bracelets were the most important form in this regard. The other silver bracelet is much thinner and lighter and has an inset stone in the center. A fastener is formed by a perforation at one end and a raised knob at the other end that is inserted into the perforation (34917; Fig. 76b).

The brass bracelet is a single 2-mm-wide ring of that material (34918). According to the accession notes, this bracelet was well known among the Mesquakie, and its origin could be traced back three generations. It was "probably made at Rock Island, taken with the Indians to Kansas, back to Dubuque and then to Tama."

A single pair of *armbands* are ribbed along the edges and ornamented with stamped bosses filled with rocker engraving (92051-1, 2). Currently on exhibit, they are illustrated by VanStone (1989, fig. 15a).

The collections contain five finger *rings* of German silver. The square bezels of two are decorated with nearly identical stamped designs (34911, 34912; Fig. 77b, e). The other three have raised bezels inset with rectangular pieces of abalone shell (34913, 34914, 34915; Fig. 77a, c–d).

A variety of *necklaces* were worn by both men and women, and multiple strands of shells were especially popular. The collections contain such a necklace of long, white glass beads strung on string at intervals with cowrie shells (92014). Among the Menominee it was considered that such necklaces were a modern substitution for wampum (Skinner, 1921, pp. 126–127).

A semirigid necklace that is on exhibit appears to be a thick roll of hide, approximately 2 cm in diameter, wrapped with alternating bands of blue, red, green, pink, and white beads (92013).

One of the most impressive personal ornaments worn by Mesquakie men was a bear claw necklace, which traditionally proclaimed the bravery and stature of the wearer (Torrence, 1989, p. 19). The collections contain a necklace of this type, but the claws are made from cow horn. The core of the necklace, probably rolled cloth, is wrapped with otter fur. Two rows of large red, white, and blue beads are strung on string between the claws, and a long trailer of otter fur extends from the necklace. On the front of this strip are four small mirrors edged with red wool stroud. The uppermost mirror also has an edging of blue, pink, and white beads (34895; Fig. 78). According to Torrence (1989, p. 20), Mesquakie bear claw necklaces were greatly valued by other tribes.

Mesquakie necklaces very similar to this one are illustrated in Skinner (1925, pl. XIV, fig. 3), *Art of the Great Lakes Indians* (1973, no. 272), Penny (1992, nos. 45–46), and Torrence and Hobbs (1989, no. 115). According to the accession notes, the necklace described here was worn "during political functions by chiefs, councilors, warriors, etc."

According to Skinner (1921, p. 131), Menominee men removed facial hair with *tweezers* made from a coil of spring wire. The collections contain such a brass coil, fitted over a carefully worked wood holder that is pointed at one end and that has a suspension hole and short length of buckskin thong at the other end (92034; Fig. 75j).

Ceremonial Equipment

Most of the objects described in this section are "ceremonial" only in the broadest meaning of the term. Many appear to have been used primarily in contemporary social dancing, gatherings, and rituals, although some may have been valued family heirlooms. A few were also associated with the curing of illness.

The collections contain a *roach headdress* consisting of soft and coarse hairs dyed red and black. The black hair is actually from a turkey's beard, the bristle-like feathers on the bird's breast, while the red hair is dyed horsehair. Extending upright through the front of the roach is a short bone tube that serves as a swivel, from which extends a golden eagle feather; there is no spreader. Attached with thread to the spine of the feather is a

narrow strip of wood wrapped with black- and white-dyed porcupine quills. Similar quill-wrapped strips are seen on a feather fan illustrated in Torrence and Hobbs (1989, no. 122). At either end of this wood strip are tufts of ermine skin, down feathers, and, at the lower end, a rattlesnake's rattle. The base appears to have been constructed by folding the turkey beard feathers and horsehair around strips of rawhide, which are held in place with sinew wrapping (34979; Fig. 79). This roach headdress, which measures approximately 43 cm × 33 cm, is listed in Torrence and Hobbs (1989, p. 128, no. 116), where it is dated "c. 1870." A somewhat similar roach, which does not have the feather, is illustrated in the same volume (no. 117). Among the Menominee, a roach was attached to the back of the head by drawing the scalp lock through the broad part of the base (Skinner, 1921, pp. 113–114). Field Museum's roach was attached to the head with a strip of rawhide drawn through two pairs of holes in the bone tube.

Three *masks* of wire mesh are clearly not of native manufacture. They are described in the catalog as "used in dances." All three have been painted, probably by the owners. The paint has largely disappeared on the first, which has curved and straight red lines on both cheeks, yellow circles on both cheeks, black eyes, and a red mouth (92040; Fig. 80c). On the second mask, half the face is painted blue and the other half yellow. There are yellow and blue lines on the cheeks and chin (92041; Fig. 80a). The third mask appears to have been painted black with wide bands of red around the eyes, broad yellow strips on the cheeks, and a pattern of yellow rectangles across the forehead (92042; Fig. 80b). Masks similar to these, imported from France, are illustrated in a "sporting goods" catalog published in 1886 (Peck & Snyder, 1971 [1886]), where they are listed as costing between 50¢ and $1.00 and are described as ideal for "masquerade balls."

Among the Sauk, small bags of woven beadwork containing packets of medicine were "taken, chewed, and sprayed over the body to render the user invulnerable" (Skinner, 1925, p. 94). The collection contains three *medicine bags*, two of which are small, rectangular, and constructed of woven beadwork. The first bag has parallel rows of pink, dark blue, white, and yellow beads, with a handle of plaited yarn decorated with white beads (92055; Fig. 81c). According to the catalog it originally contained an "object with beaded covering," but that is now missing. The second bag, on exhibit, is similar in size and is decorated with spiderweb, corn, and oak leaf designs in red, white, and yellow beads (34909). According to the accession notes, this is a "young man's bag for medicines, love potions, magic, etc." Similar medicine or charm bags are described in detail by Lurie (1986) and illustrated by Penny (1992, nos. 66, 68). The third medicine bag is actually a pouch, rather crudely constructed from a single rectangular piece of buffalo hide, sewn up the sides with rawhide and folded over to form a flap. At the lower edge of the flap is a strip of rawhide, which, although broken, at one time served to close the pouch (34969; Fig. 81d). According to the accession notes, this pouch is a "medicine sack for holding bark, roots, etc."

Also probably associated with curing is a *cupping horn* made from a cow's horn. It is considerably pared down, and there is a raised lip at the proximal end (92038; Fig. 81f).

War clubs of hardwood, both the flat or gunstock type and the ball-headed variety, were used by the Mesquakie. The collections contain three flat clubs. The first is painted black and, according to the catalog, is made in the shape of a snipe's leg. There are suspension holes at either end, between which is strung a length of tanned hide. A row of unidentified black-dyed feathers hang from the hide strip, the distal ends of their spines being inserted through holes in the hide and bent over (34887; Fig. 82). The second flat war club is similar in shape but is wider and is made of red cedar. It has suspension holes at both ends, with a crow and golden eagle feather pendant at one end and a perforated leather strip at the other. A strip of otter fur is attached near the center (34889; Fig. 83b). Both these war clubs are described in the catalog as "ceremonial," and the second is further described as a "model." Undoubtedly what is meant is that these clubs were made in imitation of traditional war clubs for contemporary ceremonial purposes. The same is doubtless true of the third flat war club, which is similar in shape to the others, appears to be made from a piece of commercial lumber, and is described in the catalog as "made after old form" (92064; Fig. 83a).

The fourth war club is ball-headed with a heavy iron spike extending from the ball. There is a suspension hole at the proximal end, from which extends a length of braided horse hair wrapped at the proximal end with red wool stroud and yellow beads. The strip of wool stroud has diamond-shaped perforations along its entire length (92039; Fig. 84). Torrence (1989, p. 237) believed that the

braided horsehair represented the scalp of an enemy. According to Skinner (1921, pp. 314–315), the Menominee retained war clubs for many generations and considered them ancestral heirlooms. The same was doubtless true of the Mesquakie, and this club is illustrated in Torrence and Hobbs (1989, p. 131, no. 162), who date it "c. 1830." The Field Museum catalog describes it as "old."

A rectangular strip of red wool stroud, 264 cm long, is folded and stitched with thread. A variety of feathers, including those of the red-tailed and red-shouldered hawk, crow, bald eagle, and turkey vulture, are inserted at regular intervals; the resulting artifact is described in the catalog as a "*coup stick cover.*" The proximal ends of the feather spines are pushed through slits in the wool cloth and then bent back on themselves. To help keep the long row of feathers upright and in place, a length of blue yarn is run through the feather spines about 4.5 cm above the edge of the wool cloth (92057; Fig. 85). This object is listed in Torrence and Hobbs (1989, p. 129, no. 123), where it is described as a "lance banner" and is dated "c. 1850." According to Skinner (1925, p. 74), among the Sauk, coup counting took place at adoption feasts. However, he makes no reference to coup sticks.

Rattles made from dried gourds are common among Plains and Great Lakes Indians; there are three in the Mesquakie collections. The first is a small, nearly round gourd with a thin wood handle running through it (92031; Fig. 81e). The second, on exhibit, is even smaller, being approximately 15 cm in length. A wood peg extends through the gourd, the proximal end fitting into a wood handle that flares at both ends (92032). On the third rattle the handle is an extension of the gourd. A small round hole on one side is closed with a wood peg, the surface of which is flush with the surface of the gourd (92033; Fig. 86). Gourd rattles were the common form of ceremonial rattle among the Menominee and Winnebago, where traditionally they were filled with seeds but in more recent times have been filled with pebbles, beads, or buckshot (Skinner, 1921, pp. 352–354; Radin, 1923, p. 123).

Although flutes were used in many ceremonies by Great Lakes area Indians, they were most commonly associated with the courting rituals of young men (Skinner, 1921, pp. 355–357; Radin, 1923, p. 123). The collections contain four *flutes*, all of which are made from two split and hollowed pieces of wood that were glued together. Three are lashed in several places with strips of buckskin; all four have six finger holes. The first flute is made from sumac wood, and the area around the air hole is an inset frame of cedar, the air hole itself being lined with metal. The slide by which the tone is regulated is also of cedar and is carved to represent a horse (34892; Fig. 81b). The second flute is made of red cedar and has a slide of the same material (34893; Fig. 87a). The third, also made of red cedar, is constructed somewhat differently. The two halves are joined in three places and at each end by bands of inlaid lead. The slide of cedar is carved to represent a horse (34894; Fig. 87b). This flute is illustrated in Torrence and Hobbs (1989, p. 131, no. 152). According to the catalog, the air hole on the fourth flute was lined with an old cartridge case; both this lining and the slide are now missing (92025; Fig. 81a). Among the Menominee, flutes that were used in successful courtships were highly valued and could be rented at a good price (Skinner, 1921, p. 357). Skinner illustrated a young man playing a "lover's flute" (pl. CI).

According to Torrence (1989, p. 23), wood effigy carvings representing manitous were "created in accordance with visionary instruction and maintained within sacred bundles." One probable carving of this type, representing a *turtle effigy*, is carved out of walnut (34860; Fig. 81g).

Games and Toys

Games of chance and dexterity are both represented in the Mesquakie collections, but of the first variety there are only two examples. The widely distributed dice game is represented by a *dice bowl* and eight *dice*, four of which are on exhibit. The bowl, like those described in an earlier section, is made of maple and is round and highly polished. The four bone dice are polished on one surface. Three have a pair of incised circles on one surface, while the fourth, which is smaller, is plain (34817-1–8; Fig. 88). According to Culin (1907, p. 85), both men and women played the dice game, but it was more likely to be played by women. The dice were tossed in the bowl, points were awarded according to the markings on the dice, and the count was kept with 10 sticks.

The collections contain a bundle of 100 peeled willow *counting sticks*, wrapped with a strip of cotton cloth, that were part of a stick game. According to the accession notes, Culin (1907, pp. 232–233), and Jones (1939, p. 111), the game was

no longer played at the time of Jones's fieldwork, but was well known as a game played by characters in a myth. A dividing stick for separating the counting sticks during the game is missing (34963-1–100; Fig. 89b). In playing this game, the entire bundle was held in the hands and then dropped in a pile, which was then divided with the pointed dividing stick. The object was to separate a series of denominations: 1-11-21-31-41, et cetera, 3-13-23-33-43, et cetera, and on up with odd numbers up to nine. Two sides played, with one side holding the sticks and the other playing them. Before using the dividing stick, a player had to indicate which denomination he would attempt to divide. For example, if he called out the number one denomination, the player had to separate out 1-11-21-31-41, et cetera. If he succeeded, he scored one point, but if he failed, the turn went to another player. The number of points in a game was determined before playing.

The most abundant dexterity games in the Mesquakie collections are those identified as *snow snakes*, a class of game in which "darts or javelins are hurled along snow or ice or free in the air in a competition to see whose dart will go the farthest" (Culin, 1907, p. 399). Four types of snow snakes are represented in the collections.

The type 1 game consists of three pairs of slender hickory sticks with heavy egg-shaped ends, which, according to the accession notes, was a man's winter sport played on snow, ice, and frozen ground. The bulbous ends of one pair have been fire-hardened (34875-1, 2, Fig. 90a; 34876-1, 2, Fig. 90b; 92043–44, Fig. 90c). A similar game, collected by Jones for the American Museum of Natural History, is described and illustrated by Culin (1907, p. 407, fig. 524).

Two sets of type 2 snow snakes are described in the catalog simply as "throwing sticks." One set consists of a pair of peeled hardwood sticks pointed at one end, one longer and thicker than the other. The second set consists of three slender peeled sticks of equal length, pointed at one end. The accession notes indicate that the game was played in the fall, with the sticks being thrown on the ground (34881-1, 2, 34882-1–3; Fig. 91a–b). Similar pointed sticks, collected by Jones for the American Museum of Natural History, are described by Culin (1907, p. 407).

A pair of type 3 snow snakes are flat on the underside and ridged along the top. One end is carved to represent a snake's head and the other to serve as a handhold. Burned marks occur along the length of one stick (34880-1, 2; Fig. 92a). The accession notes indicate that the game was called "serpents" and was played in winter by fasting boys. Similar snow snakes, collected by Jones, are described and illustrated by Culin (1907, p. 407, fig. 525). The Field Museum's type 3 snow snakes are listed but are not illustrated in Torrence and Hobbs (1989, p. 132, no. 165), where they are dated "c. 1880." Hoffman (1896, p. 244, fig. 31, p. 245) described and illustrated the method of holding and throwing this type of snow snake among the Menominee.

The type 4 snow snake includes a pair of hickory darts elliptically shaped at the distal end and flattened and broadened with a notch at the proximal end. A peeled stick with an attached length of bark cord served as a sling (34874-1–3; Fig. 93a). The accession notes indicate that the players decided to play for a certain number of points, and that the greatest distance covered in one throw was worth one point. Similar darts, collected by Jones, are described and illustrated by Culin (1907, p. 408, fig. 527).

One of the most widely distributed American Indian games was the hoop and pole game. Implements required to play were a hoop or ring to serve as a target and a dart or pole. The method was to throw or shoot the pole at the hoop, the scoring being determined by the way in which the pole fell with reference to the hoop (Culin, 1907, p. 420). A *hoop and pole* game in the Mesquakie collections originally consisted of three short bows with buckskin strings, two long unfeathered arrows, 63 cm long and with sharpened points, and three bark rings. Unfortunately, all that remains of this game are two bows and one bark ring (34869-1, 3, 7; Fig. 93b). The accession notes provide a cryptic description of this game. "Two sides chosen, arrows are stuck up by both sides, bark wheels are rolled against arrows; losing side puts up arrows for stake; losers roll wheels; winners shoot at wheels; one piercing wheel with arrow remaining in wheel keeps arrow; wheel often buried in sand and shot at." This form of the hoop and pole game is described and illustrated by Culin (1907, p. 448, figs. 384–386), with information provided by Jones. Another account is given by Jones (1939, p. 110), but neither is clearer than the one in the accession notes.

Shinny, a hockey-like game usually played by women, is represented in the collections by two *shinny sticks and a ball*. The sticks, both on exhibit, are made of hardwood and are curved at the distal end. The ball is made from two pieces of tanned buckskin sewn together and stuffed with

grass (34883-1–3; Fig. 89c). A similar game, collected by Jones, is described and illustrated by Culin (1907, p. 622, fig. 800). According to Jones (Culin, 1907, p. 622), men and women played shinny either separately or together. The goals were lines on opposite sides "across which the ball had to be driven from either side to count."

In the ring and pin game, the target is attached to a cord with which it is swung in the air, the purpose being to catch it on a pin attached to the other end of the cord (Culin, 1907, p. 527). The collections contain a single *ring and pin game*, on exhibit. It consists of seven truncated wooden cones strung on a buckskin thong, with a wooden pin at one end of the thong and a strip of perforated leather at the other (34884). The accession notes indicate that when the last cone is caught on the pin, it counts two, while the others count one. Catching one of the holes in the perforated strip counts four. Similar Mesquakie ring and pin games are described and illustrated by Culin (1907, p. 542, fig. 713).

Racket ball or lacrosse is apparently one of the oldest Mesquakie games and, according to Jones (1939, pp. 109–110), was given to them by a manitou when the people were still living "somewhere beyond the Great Lakes." The collections contain five rackets, two of which are accompanied by balls. All are made from hickory or some other hardwood. On four rackets the distal end is cut thin and turned around to form an oval loop netted with strips of soft tanned buckskin (92052-1, 2; 92053; 34878; 34879-1; Figs. 92c–d, 94). The fifth racket, missing the associated buckskin-covered ball, has a handle, the distal end of which is turned to one side to form a circular loop (34877-1; Fig. 92b). A buckskin-covered ball stuffed with grass accompanies one racket (34879-2; Fig. 94), while the second ball is made of solid rubber (92052-2; Fig. 89e). Similar rackets and balls, collected by Jones for the American Museum, are described and illustrated by Culin (1907, pp. 572–573, 756–757, 759–760). The Sauk game is described briefly by Skinner (1925, pp. 55–56).

The only object in the collection identified as a toy is an oddly shaped tree fungus described in the catalog as a *doll*. It appears to be unmodified by human workmanship, but with its hat-like projection at the top, it has a certain resemblance to a squat human figure (34977; Fig. 89d). Owen (1904, p. 66) noted that Mesquakie children had few toys but that the girls did have dolls. Corn husk dolls with clothing of muskrat and squirrel skins are mentioned for the Mesquakie by Michelson (1925, p. 338).

Miscellaneous Beadwork

Both collections contain a few examples of unfinished beadwork that cannot with certainty be included in any other section of this study. However, all of these are likely to have been associated with clothing or personal adornment.

A narrow strip of *beadwork on a bias* was removed from a frame loom before completion. Multiple warp threads are tied together at one end; at the other end the threads are secured tightly between two short sticks, one of which is wrapped with a piece of tanned skin. The weft threads are strung with beads and passed over and under the warp threads. The completed beadwork consists of geometric designs in red, green, blue, and yellow beads on a background of white beads. A shuttle and heddle are missing from this assemblage (34986; Fig. 89f).

Braided strands of red yarn, 107 cm long, are wrapped with red, yellow, green, and blue beads. At one end the bead-wrapped strands are separated for a length of 8.5 cm. Probably this is an *unfinished hair ornament* (34985).

A rectangular piece of black *cloth with beadwork*, 99 cm long and 15.5 cm wide, is edged with red cotton cloth. Oak leaf design elements, in two parallel rows of three, are in blue, green, yellow, and pink beads. Five designs are outlined in white beads and the sixth is outlined in clear beads (92003).

Another rectangular piece of black cloth, 139 cm long and 15.5 cm wide, is decorated with a strip of yellow cloth running along one side and a similar strip of gray cloth along the other. Both strips have patterns of cut squares running their entire length, the cut area on the gray strip being backed with red cloth. Along the inner edge of each appliquéd cloth piece is a row of round steel buttons. At regular intervals, running along the strips near the edge, are pairs of blue beads. Along the outer edge of each strip is a row of alternate vertical and horizontal white beads. The catalog suggests that this object may have been a *breechcloth* (92008; Fig. 95b).

Two pieces of backed black velvet cloth were presumably intended to be the front sections of a *shirt or vest*. Both pieces are decorated with floral designs in red, blue, green, pink, and tan beads edged with clear beads. On each piece of cloth is

a pair of slit pockets. A row of small metal discs are sewn outside the lower edge of each pocket, while the upper edges are decorated with pairs of light blue and red beads (34984-1, 2; Fig. 95a).

Raw Material and Plant Specimens

The Jones Mesquakie collection contains a sizable assemblage of raw materials primarily related to Indian diet and housing. Much of this material was presumably collected with the expectation that it would be used in museum exhibits and that at least some of it would be the subject of additional research. There are only two items in the Starr collection that belong to this category.

The collection includes strips of *dried squash*, some of which are plaited. Squash is described in the accession notes as a delicacy used for seasoning boiled meat (34753–54, 34761). One assemblage of plaited strips that are approximately 15 cm long and 1.5 cm wide, measuring about 40 cm by 20 cm, is on exhibit. It is described as sufficient for 30 meals eaten by a man, woman, and child (34752).

Maple sugar is represented in the collection by two mussel shells that have sugar pounded into them (34760-1, 2), by a package of pulverized sugar (34829), and by a cake of sugar that appears to have been formed in a mold (34759).

Native tobacco is described as being used only for ceremonial purposes (and not for smoking purposes). It was gathered in leaf, dried in the sun, pulverized, and put away. Then it was used at funerals, when it was sprinkled on the body and presented as an offering to "the thunderers" (34762). The collection also contains a bag of "*red willow wood*" that was dried over a fire, crushed in the hand, and mixed with smoking tobacco (34830).

Examples of yellow, black, and red *vegetable dyes* are included in the collection. The black dye is described as being derived from walnuts. For use, the dyes were boiled and the material to be dyed was soaked in the liquid (37465–67).

Linden bark was used for tying rough material, lashing lodge poles, and making mats (34768–70, 34776, 34900). There is also a ball of linden bark cord produced by women by twisting it between the hand and the calf of the leg (34771; see Skinner, 1921, p. 250, fig. LXII). There are also examples of *wild hemp*, (34772), *hemp fibers* (34773-1, 2), and *balls of hemp cord* (34774-1, 2). Both collections contain small bundles of natural and dyed rushes used in mat making (34970, 92065–66).

In addition to the raw materials just described, the Jones collection contains a number of plant specimens. These include the following: ears of corn (34724–29, 34741), a package of corn steamed and dried (34730), ground hominy (34734), corn prepared in lye (34733), packages of pole beans (34735–40, 34742–43), bunch beans (34744–46), wild potatoes (34747), vine potatoes (34748), lily root (34750), and lily seed (34751).

III. Conclusions

The material culture of several Woodland tribes is reasonably well known, largely through the efforts of Alanson Skinner, who published studies of the Sauk (1925) and the Prairie Potawatomi (1926) manufactures. Far more comprehensive than either of these accounts is his study of Menominee material culture (Skinner, 1921), a publication used extensively in the preparation of this study. There is, however, no comprehensive published account of Mesquakie material culture, although significant collections are to be found in several American museums. An exhibition catalog (Torrence and Hobbs, 1989) briefly describes 188 Mesquakie objects and illustrates 84. The accompanying essays, although focused primarily on problems of art and iconography, contain much useful information on the ethnographic context of the objects in the exhibition.

The two collections described and illustrated in the preceding pages are not well known even to ethnographers with a special interest in Woodland cultures. For that reason alone, it has seemed worthwhile to place them on record, particularly since they represent a reasonably comprehensive range of material items, for the most part acquired by the Field Museum under controlled circumstances at a relatively early date, when traditional or modified traditional material culture was still available to collectors.

The Starr collection, the smaller of the two, was included primarily because it was apparently collected at about the same time as the Jones assemblage and because it includes a few artifact types not obtained by Jones. The Starr collection, part of a large hemisphere-wide private collection assembled over an unknown number of years, lacks documentation other than provenience. It is of

particular interest because more than half of the small total number of ceremonial objects identified in both collections were obtained by Starr. This is the only use category that is significantly enhanced by including the Starr material in this study.

The Jones collection, on the other hand, is by almost any measure a major assemblage and was the motivation for this study. Jones was a trained anthropologist, a student of Franz Boas with the distinct advantage of being a Native American member of the tribe in question, at a time when Native American ethnographic collectors were rare anywhere in North America. The size and diversity of his collection are impressive and the documentation is good, considering that Jones was only in the field for about one month. Although born in Oklahoma, he had visited the Mesquakie in Tama on previous occasions, having made an important collection there for the American Museum of Natural History. In his letters to Dorsey from Tama, Jones mentions his pleasure in meeting old friends, and he was obviously a welcome visitor in many households. In many ways he was an ideal field collector, and it is therefore not surprising that he was able to make a large and varied collection in a short period of time.

It will have been clear from the preceding pages that the strengths of the Jones collection include its household equipment and, to a lesser extent, its clothing and games, while its weaknesses are greatest in the categories of hunting and fishing equipment, tools, transportation, and ceremonial equipment. The presence of numerous and varied items of household equipment must be due at least in part to the easy access to households enjoyed by Jones, but are probably mainly due to the presence of the collector at a time when many traditional items of household use were being replaced by Euro-American items that were longer lasting and more convenient to use. His Indian informants presumably were in need of money and were willing to part with material items that were in the process of being replaced anyway. Particularly impressive in this category is the large number of woven bags, many of which show considerable signs of use. Clothing, however, was not available to Jones, since by 1907, as he noted in his letters to Dorsey, Indians were dressed primarily in the western style. He solved this problem by providing prepared skins to elderly sewers who remembered how to sew clothing in traditional styles.

It is not surprising that traditional hunting and fishing equipment is poorly represented in the Jones collection. At the time of his visit to Tama, there must have been few if any traditional subsistence activities practiced by these former Woodland people. The few items in this category may have been made for the collector. That some hunting must have persisted, however, is indicated by the few tools in the collection, most of which are related to skin working. Items like the fire drills were clearly made for the collector and are identified as such. Horses were still very much in use, of course, but primarily for pulling wagons. The pack saddles and quirts may be relics from an earlier day.

In his correspondence with Dorsey, Jones seldom refers to objects that were markedly expensive or unavailable to the collector. He does mention that obtaining otter skin headdresses and bear claw necklaces would place a considerable strain on his limited funds and that medicine bundles could not be purchased at any price. Whether the latter were being retained by active participants in sacred rituals or as valuable heirlooms kept out of respect for the past is not clear. A few years later a collection of Sauk and Fox bundles was made in Oklahoma by Harrington (1914). In any event, objects identified as "ceremonial" are limited and some, such as the wire masks and "war clubs," appear to have been used in secular ceremonies.

George Dorsey, who hired Jones to make the Mesquakie collection and to go to the Philippines for the same purpose, was at this time an experienced collector himself. Between 1897 and 1900 he made ambitious field trips throughout the West and Southwest for the purpose of obtaining ethnographic material to be used in museum exhibits (Field Columbian Museum, 1897, pp. 186–187; VanStone, 1992, pp. 2–3; 1996, p. 3). Dorsey's views on collecting are evident in his correspondence with various field workers sent out under his direction (Rabineau, 1981, p. 34). He believed in collecting broadly while concentrating money and energy in selected locations to "fill the gaps" in collections acquired from the World's Columbian Exposition in 1893; he also believed that collections should be well documented. Although Dorsey himself had visited the Mesquakie in Tama in the summer of 1900 and had made a small collection of 42 objects (accession 683), he must have realized that the availability of Jones represented a unique opportunity to obtain material from an area that was poorly represented in the museum's collections. That Jones would be

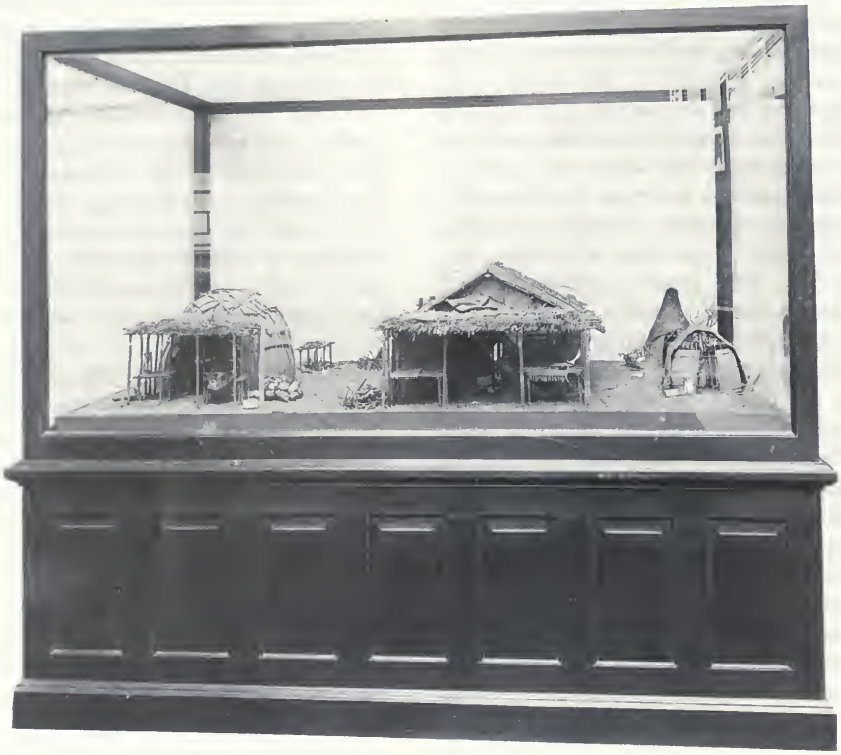

FIG. 96. Diorama depicting summer and winter Mesquakie dwellings (FMNH neg. no. 23953).

able to spend only a month at Tama would not have bothered Dorsey, since he himself seldom spent more than a few days on the reservations he visited on his earlier collecting trips.

Dorsey did not provide Jones with any suggested collecting plan. He did suggest that materials be acquired for constructing a model of a Mesquakie lodge. Jones himself wished to collect materials for a full-sized lodge, and such materials were obtained. Such a lodge was apparently never set up at the museum, although two dioramas, presumably constructed by or under the supervision of Jesse Burt, were installed (Figs. 96–97). Considerably refurbished, they are still on display. Dorsey's letters to Jones at Tama were encouraging and helpful to the young field worker, and they lack the exhortative qualities often characteristic of his letters to others collecting for the museum (VanStone, 1983, pp. 2–6). Like other 19th and early 20th century museum collectors, Dorsey preferred to avoid objects showing European influence, but there is no mention of this in his correspondence with Jones.

It remains to be considered whether the collection made by Jones is representative of material objects in daily use by the Mesquakie in 1907. Relatively few objects appear to have been made specifically at the request of the collector. Only some of the clothing and a few objects identified as "models" fall with certainty into this category. It seems likely that some objects long out of use were preserved by the Indians as heirlooms, and that the collector's ready cash outweighed the sentimental and historical value of such pieces. In their catalog, Torrence and Hobbs (1989) included 21 Mesquakie objects borrowed from the Field Museum for the exhibit on which the catalog is based. Most are from the Jones and Starr collections, but isolated pieces from other unrelated accessions are also included. All are arbitrarily as-

FIG. 97. Diorama depicting a Mesquakie winter dwelling (FMNH neg. no. 27588).

signed dates that are 10 to 70 years earlier than the date of their collection. In most cases these dates are probably reasonable, but the authors do not explain the basis on which they were assigned. Nevertheless, it is likely that both the Jones and Starr collections are representative of Mesquakie material culture in the mid-19th century, not long after the Mesquakie began the move from Kansas to Tama County, Iowa, in 1857.

Acknowledgments

I am grateful to David E. Willard and William Stanley of the Field Museum's Department of Zoology, who identified feathers and animal skins used in the manufacture of artifacts in the Mesquakie collections. The drawings are the work of Lori Grove, and the photographs were taken by John Weinstein, museum photographer. Ronald L. Weber called my attention to a probable source for the wire masks in the Starr collection. Several drafts of the manuscript were typed with accuracy and dispatch by Loran H. Recchia. Finally, I express my appreciation for the efforts of three reviewers who identified themselves: Raymond J. DeMallie, Nancy O. Lurie, and Andrew Hunter Whiteford.

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Appendix 1

The Jones (Accession 1014) and Starr (Accession 947) Mesquakie Collections

Following is a list of the Jones and Starr collections described in this study. Artifact identifications are, with a few exceptions, those provided by the collectors. Numbers in the 92000s are those collected by Starr. Also included is a list of the raw materials and plant specimens collected by Jones.

Hunting and Fishing

34868	bow (Fig. 4a)	$ 3.00
34870-1, 2	fish arrows (Fig. 4b–c)	2.00
34867	bow	1.50
34871	arrow (Fig. 4d)	.75
34872	arrow	.75
34873-1–4	arrows	2.00 each
34901	glue stick (Fig. 5e)	.25
34976	bowstring (Fig. 5f)	
34960	wrist protector (Fig. 5g)	.25
34885	shot mould (Fig. 89a)	.75

Tools

34857	beaming tool (Fig. 5d)	$ 1.00
34858	beaming tool (Fig. 5c)	1.00
34886	adze	.50
34763	awl	
34890	needle	.25
34891	needle (Fig. 5a)	.25
92036	needle (Fig. 5b)	
34859	perforated scapula (Fig. 5h)	.50
34965-1–4	model fire drill (Fig. 6b–e)	1.00
34966-1–5	model fire drill	1.00
92050-1, 2	fire drill (Fig. 8)	
92049-1–4	fire drill (Fig. 7)	
34963	"bellows for syringe" (Fig. 6a)	.10

Transportation

34852	pack saddle (Fig. 9a)	$ 3.50
34851	pack saddle (Fig. 9b)	1.50
34833	quirt (Fig. 10c)	.50
34835	quirt (Fig. 10e)	.50
92035	quirt (Fig. 10b)	
34834	quirt	3.00
34831	quirt (Fig. 10d)	1.00
34856	toy dugout canoe (Fig. 10a)	1.00
92058	pack bag with strap (Fig. 11)	

Household Equipment

34814	bowl (Fig. 12c)	$ 1.50
34816	bowl	2.00
34805	child's bowl (Fig. 12d)	1.00
34810	child's bowl (Fig. 13d)	.50
34802	bowl (Fig. 12b)	2.00
34809	bowl	2.50
34800	bowl (Fig. 12a)	2.50
34803	bowl	1.50
34806	child's bowl	.75
34807	child's bowl	.25
34808	child's bowl (Fig. 13c)	.50
34801	bowl	2.50
34812	bowl	.25
34811	bowl (Fig. 14)	.50
34818	ladle (Fig. 13e)	.75
34821	ladle	.25
34823	ladle	.25
34824	child's ladle	.25
34826	child's ladle	.25
34825	child's ladle (Fig. 15f)	.25
92028	ladle (Fig. 15e)	
92029	ladle (Fig. 15c)	
34828	ladle (Fig. 15b)	.50
34827	child's ladle (Fig. 15d)	.35
34819	ladle	.75
34820	ladle (Fig. 15a)	.50
34974	stirrer (Fig. 13a)	1.00
92030	stirrer (Fig. 13b)	
34964-1, 2	mortar and pestle (Fig. 16)	1.00
34832	mussel shell	
34797	unfinished fiber bag	1.00
34798	unfinished fiber bag (Fig. 17b)	.75
34799	unfinished fiber bag	.50
92062	unfinished fiber bag (Fig. 17a)	
34968-1, 2	weaving frame sticks	.75
34795	woven fiber bag, type 1 (Fig. 18a)	1.00
34796	woven fiber bag, type 1	1.00
92061	woven fiber bag, type 1 (Fig. 18c)	
34793	woven fiber bag, type 2 (Fig. 19)	2.00
34794	woven fiber bag, type 2 (Fig. 20)	3.00
92059	woven fiber bag, type 2	
92060	woven fiber bag, type 2	
34792	woven fiber wallet, type 2 (Fig. 18d)	.10

92045	woven fiber pouch, type 2 (Fig. 18b)	2.00
34777	woven wool/fiber bag, type 3 (Fig. 21)	2.00
34778	woven wool/fiber bag, type 3 (Fig. 22)	1.50
34779	woven wool bag, type 3 (Figs. 23–24)	4.00
34780	woven wool bag, type 3 (Figs. 25–26)	2.00
34781	woven wool bag, type 3	5.00
34782	woven wool bag, type 3	5.00
34783	woven wool/yarn/commercial twine bag, type 3 (Figs. 27–28)	5.00
34784	woven wool/yarn/commercial twine bag, type 3 (Figs. 29–30)	3.00
34785	woven yarn bag, type 3 (Figs. 31–32)	3.00
34786	woven yarn/commercial twine bag, type 3 (Figs. 33–34)	4.00
34787	woven wool/yarn bag, type 3 (Figs. 35–36)	4.00
34788	woven wool/yarn/commercial twine bag, type 3 (Fig. 37a)	2.00
34789	woven wool/fiber bag, type 3	.50
34790	woven yarn/fiber bag, type 3 (Figs. 38–39)	5.00
34791	woven yarn/fiber bag, type 3 (Figs. 40–41)	4.00
92046	unfinished woven yarn bag, type 3 (Fig. 37b)	
34967-1–4	"head wrap loom"	.25
34855	heddle (Fig. 42)	2.50
92048	heddle (Fig. 43)	
34854	heddle	2.50
34847	unfinished basket (Fig. 44b)	5.00* (for 34844–49)
34848	unfinished basket	*
34849	unfinished basket (Fig. 45a)	*
34845	basket (Fig. 44a)	*
34846	basket (Fig. 46b)	*
34844	basket (Fig. 46a)	*
34929	cattail mat (Fig. 48)	1.50
34991	unfinished rush mat (Fig. 49)	10.00
34930	rush mat (Fig. 50)	5.00
34931	rush mat (Fig. 51)	5.00
34934	rush mat (Fig. 52)	7.00
92054	rush mat	
34989	rush mat	10.00
34990	rush mat	10.00
34836	rawhide trunk (Fig. 53)	5.00
34837	rawhide trunk	5.00
34840	rawhide trunk	5.00
34841	rawhide trunk (Fig. 54)	5.00
34842	rawhide trunk (Fig. 55)	5.00
34843	rawhide trunk (Fig. 56)	4.00
34902	rawhide trunk (Fig. 57)	
92012	rawhide trunk (Fig. 58)	
34839	pack strap for trunk (Fig. 59b)	1.00
92047	cradle (Fig. 60)	
34853	cradle	5.00
34971	dish for maple sap	1.00
34973	frame for drying kinikinik (Fig. 61)	1.00
34975	red willow bark for kinikinik	.10
34861	pot hook (Fig. 45e)	.10
34862	pot hook (Fig. 45d)	.10
34863	pot hook (Fig. 45b)	.10
34864	pot hook (Fig. 45c)	.10
34865	pot hook (Fig. 59a)	.10
34866	pot hook (Fig. 59c)	.10

CLOTHING

Man's Suit		$10.00
34935	coat (Fig. 62a)	
34936-1, 2	leggings	
34940-1, 2	breechcloth and waist band	
34937-1, 2	moccasins (Fig. 62b)	
Woman's Suit		$10.00
34946	jacket (Fig. 63a)	
34947	skirt (Fig. 64a)	
34950	belt	
34948-1, 2	leggings (Fig. 63b)	
34949-1, 2	moccasins	
Boy's Suit		$ 5.00* (for 34941–42,–44)
34941	shirt (Fig. 65b)	*
34944	belt	*
34942-1, 2	leggings (Fig. 65c)	*
34897	coat (Fig. 65a)	3.00
34898	coat (Fig. 66a)	2.00
Girl's Suit		$ 5.00
34953	jacket (Fig. 66b)	
34954	skirt (Fig. 64b)	
34957	belt	
34955-1, 2	leggings (Fig. 66c)	
34956-1, 2	moccasins (Fig. 67b)	
Other Clothing		
34903	head wrapper	$ 5.00
34904	head wrapper	5.00
34981	head wrapper	
92004	head wrapper	
92005	head wrapper	
92017	hair pendant	
92018	hair pendant	

92021	hair pendant	
92037	hair pendant	
92020	hair pendant and tie (Fig. 68b)	
92015	hair pendant and tie (Fig. 68d)	
34907	man's belt (Fig. 69a)	2.00
34899	sash (Fig. 70)	3.00
92009	sash (Fig. 71)	
92010	sash (Fig. 69b)	
92011	sash (Fig. 69d)	
34908	shoulder sash (Fig. 69c)	2.50
34896-1, 2	man's leggings (Fig. 72)	12.00
34906-1, 2	woman's moccasins (Fig. 73b)	5.00
34905-1, 2	woman's moccasins (Fig. 73a)	5.00
92023-1, 2	moccasins (Fig. 74a)	
92022-1, 2	moccasins (Fig. 67a)	
34982	moccasin (Fig. 74b)	
34983	child's moccasin (Fig. 74c)	
92006-1, 2	garters (Fig. 68a)	
92016-1, 2	garters (Fig. 68c)	
92007-1, 2	garters	
34951-1, 2	knife and sheath (Fig. 75i)	

Personal Adornment

92068-1–7	brooches (Fig. 75b–d)	
92069-1–22	brooches (Fig. 75e–h)	
34919	brooch (Fig. 75a)	$ .25
34916-1, 2	bracelets (Fig. 76a)	1.50
34917	bracelet (Fig. 76b)	.75
34918	bracelet	1.00
92051-1, 2	armbands	
34911	ring (Fig. 77b)	.25
34912	ring (Fig. 77e)	.25
34913	ring (Fig. 77a)	.50
34914	ring (Fig. 77c)	.50
34915	ring (Fig. 77d)	.50
92014	necklace	
92013	necklace	
34895	necklace (Fig. 78)	15.00
92034	tweezers (Fig. 75j)	

Ceremonial Equipment

34979	roach headdress (Fig. 79)	
92040	mask (Fig. 80c)	
92041	mask (Fig. 80a)	
92042	mask (Fig. 80b)	
92055	medicine bag (Fig. 81c)	
34909	medicine bag	$1.00
34969	medicine pouch (Fig. 81d)	.25
92038	cupping horn (Fig. 81f)	
34887	war club (Fig. 82)	3.00
34889	war club (Fig. 83b)	1.00
92064	war club (Fig. 83a)	
92039	war club (Fig. 84)	
92057	coup stick cover (Fig. 85)	
92031	rattle (Fig. 81e)	
92032	rattle	
92033	rattle (Fig. 86)	
34892	flute (Fig. 81b)	1.50
34893	flute (Fig. 87a)	.50
34894	flute (Fig. 87b)	3.00
92025	flute (Fig. 81a)	
34860	turtle effigy (Fig. 81g)	.25

Games and Toys

34817-1–8	dice bowl and four dice (Fig. 88)	$5.00
34962-1–100	counting sticks (Fig. 89b)	5.00
34875-1, 2	snow snake, type 1 (Fig. 90a)	1.00
34876-1, 2	snow snake, type 1 (Fig. 90b)	2.00
92043–44	snow snake, type 1 (Fig. 90c)	
34881-1, 2	snow snake, type 2 (Fig. 91a)	.25
34882-1–3	snow snake, type 2 (Fig. 91b)	.25
34880-1, 2	snow snake, type 3 (Fig. 92a)	3.00
34874-1–3	snow snake, type 4 (Fig. 93a)	1.50
34869-1, 3, 7	hoop and pole (Fig. 93b)	5.00
34883-1–3	shinny sticks and ball (Fig. 89c)	2.00
34884	ring and pin game	.50
92052-1, 2	racket and ball (Figs. 89e, 92d)	
92053	racket	
34878	racket (Fig. 92c)	1.50
34879-1–2	racket and ball (Fig. 94)	2.00
34877-1	racket (Fig. 92b)	2.00
34977	doll (Fig. 89d)	

Miscellaneous Beadwork

34986	beadwork on a bias (Fig. 89f)
34985	unfinished hair ornament (?)
92003	cloth with beadwork
92008	breechcloth (?) (Fig. 95b)
34984-1, 2	unfinished shirt or vest (Fig. 95a)

Raw Material and Plant Specimens

34753–54	dried squash
34761	dried squash
34752	dried squash
34760-1, 2	maple sugar
34829	maple sugar
34759	maple sugar
34762	native tobacco
34830	red willow wood
37465–67	vegetable dyes

34768–70	linden bark
34776	linden bark
34900	linden bark
34771	ball of linden cord
34772	wild hemp
34773-1, 2	hemp fibers
34774-1, 2	balls of hemp cord
34970	natural and dyed rushes
92065–66	natural and dyed rushes
34724–29	ears of corn
34741	ear of corn
34730	dried corn
34734	ground hominy
34733	corn prepared in lye
34735–40	pole beans
34742–43	pole beans
34744–46	bunch beans
34747	wild potatoes
34748	vine potatoes
34750	lily root
34751	lily seed

Appendix 2

The following objects in the Jones and Starr Mesquakie collections could not be located in storage or on exhibit at the time this study was begun. Information in the accession notes is added for some items in the Jones collection. The headings under which missing items are listed are those used in the Field Museum's catalog.

UNACCOUNTED FOR

34764	man's ring, German silver inlaid with abalone	$ 1.00
34815	bowl, soft maple or walnut	2.00
34910	beaded bag, corn and spiderweb designs, young man's bag for medicines, love potions, etcetera	1.00
34932–33	rush mats for lodge sewed with linden bark and native hemp	6.00
34928	rush mat for outer doorway sewed with native hemp	1.50
34938–39	belt and straps (goes with man's suit—34935–37, –40)	
34943, 45	buckskin coat and straps (goes with boy's suit—34941–42, –44)	
34952, 58	buckskin straps (goes with girl's suit—34953–57)	
34959	otter skin cap	2.00
34972	linden bark tray for maple syrup	.50
34978	necklace	
34980, 87–88	beadwork fragments	
92019	hair ornament	
92924	moccasins	
92026	bowl	
92027	ladle	
92056	bag	
92063	mat	
92067-1, 2	earrings	
92070-1, 2	finger rings	

SOLD

34804	bowl, soft maple	$ 1.00
34813	bowl	1.50
34822	ladle	1.00
34887	war club, bulb headed	3.00
34961	deer horn measure for powder	.50

EXCHANGED

34838	buffalo hide parfleche	$ 5.00
34850	pack saddle	3.00

DISPOSED

34920–27	rush mats for lodges sewed with linden bark and native hemp cord	$27.00

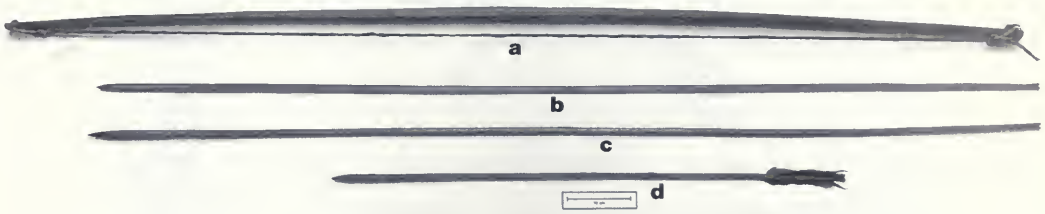


FIG. 4. **a,** bow (34868); **b,** fish arrow (34870-1); **c,** fish arrow (34870-2); **d,** arrow (34871) (FMNH neg. no. 113406).

FIG. 5. **a,** needle (34891); **b,** needle (92036); **c,** beaming tool (34858); **d,** beaming tool (34857); **e,** glue stick (34901); **f,** bowstring (34976); **g,** wrist protector (34960); **h,** perforated scapula (34859) (FMNH neg. no. 113405).

FIG. 6. **a,** "bellows for syringe" (34963); **b–e,** model fire drill (34965) (FMNH neg. no. 113404).

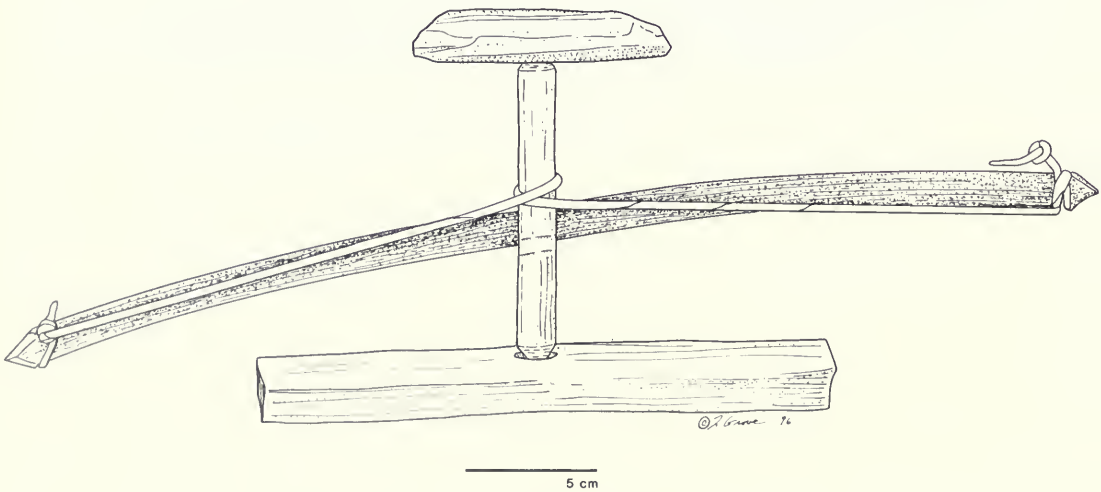


FIG. 7. Fire drill (92049).

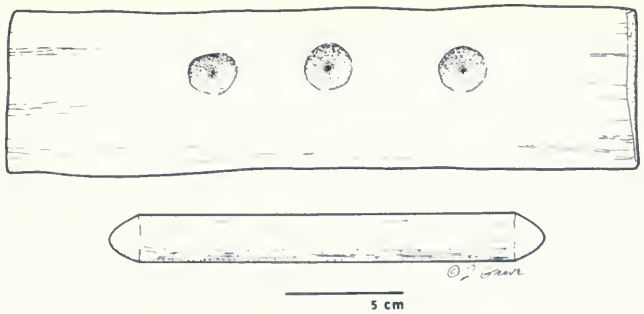


FIG. 8. Fire drill (92050).

FIG. 9. **a,** pack saddle (34852); **b,** pack saddle (34851) (FMNH neg. no. 113401).

FIG. 10. **a,** toy dugout canoe (34856); **b,** quirt (92035); **c,** quirt (34833); **d,** quirt (34831); **e,** quirt (34835) (FMNH neg. no. 113403).

FIG. 11. Pack bag with strap (92058) (FMNH neg. no. 113402).

FIG. 12. **a,** bowl (34800); **b,** bowl (34802); **c,** bowl (34814); **d,** child's bowl (34805) (FMNH neg. no. 113413).

FIG. 13. **a,** stirrer (34974); **b,** stirrer (92030); **c,** child's bowl (34808); **d,** child's bowl (34810); **e,** ladle (34818) (FMNH neg. no. 113412).

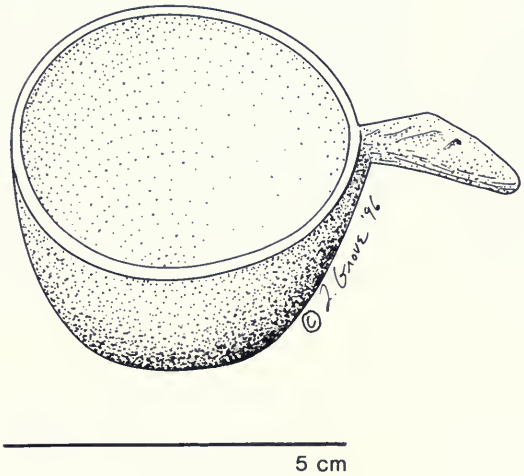


FIG. 14. Bowl (34812).

FIG. 15. **a,** ladle (34820); **b,** ladle (34828); **c,** ladle (92029); **d,** child's ladle (34827); **e,** ladle (92028); **f,** child's ladle (34825) (FMNH neg. no. 113411).

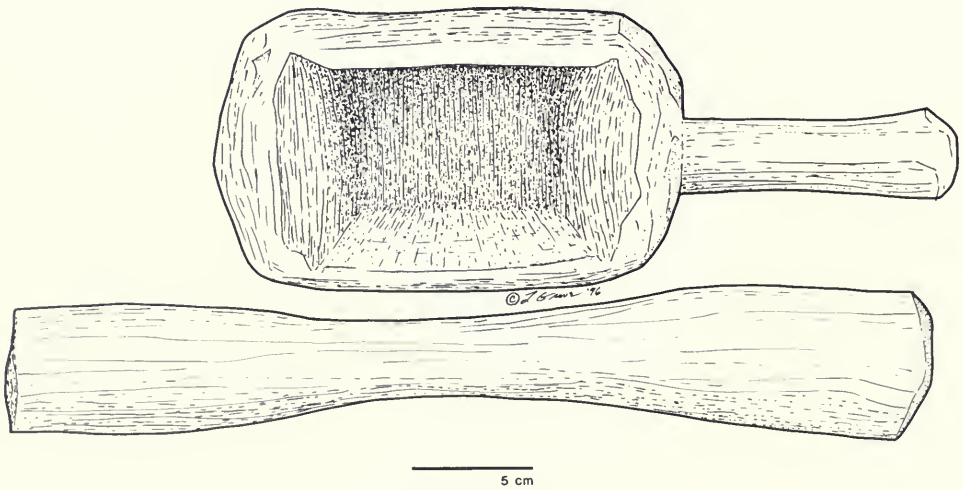


FIG. 16. Mortar and pestle (34964).

FIG. 17. **a,** unfinished fiber bag (92062); **b,** unfinished fiber bag (34798) (FMNH neg. no. 113407).

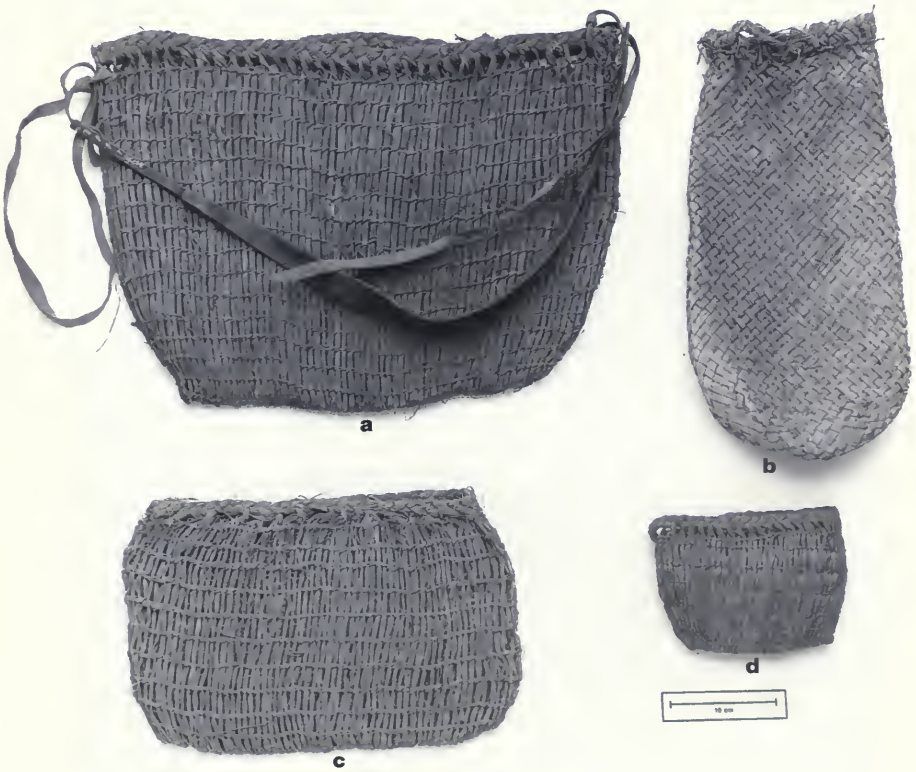


FIG. 18. **a,** woven fiber bag, type 1 (34795); **b,** woven fiber pouch, type 2 (92045); **c,** woven fiber bag, type 1 (92061); **d,** woven fiber wallet, type 2 (34792) (FMNH neg. no. 113408).

FIG. 19. Woven fiber bag, type 2 (34793) (FMNH neg. no. 113409).

FIG. 20. Woven fiber bag, type 2 (34794) (FMNH neg. no. 113410).

FIG. 21. Woven wool/fiber bag, type 3 (34777) (FMNH neg. no. 103320).

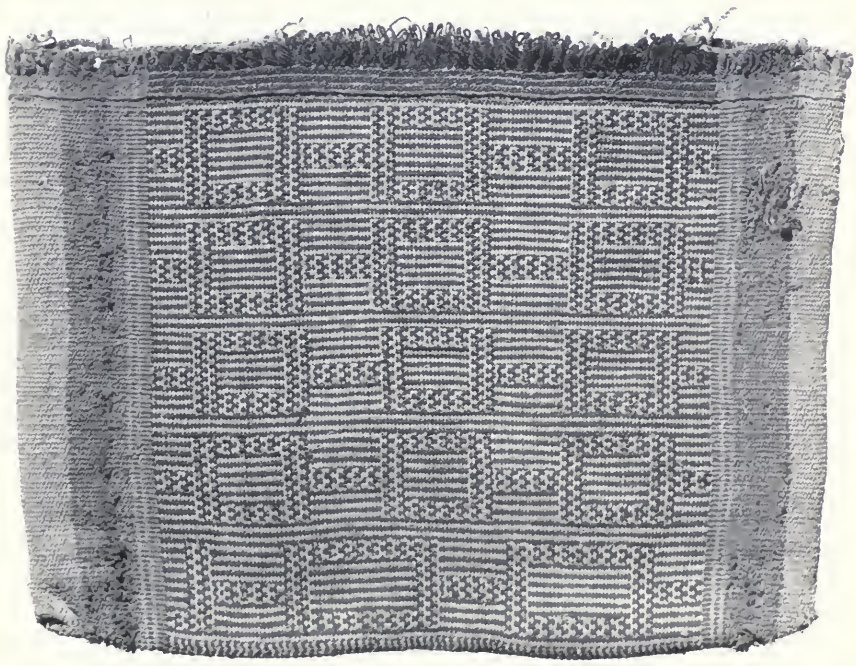


FIG. 22. Woven wool/fiber bag, type 3 (34778) (FMNH neg. no. 113229).

FIG. 23. Woven wool bag, type 3 (34779) (FMNH neg. no. 113423).

FIG. 24. Woven wool bag, type 3 (34779) (FMNH neg. no. 113424).

FIG. 25. Woven wool bag, type 3 (34780) (FMNH neg. no. 113435).

FIG. 26. Woven wool bag, type 3 (34780) (FMNH neg. no. 113436).

FIG. 27. Woven wool/yarn/commercial twine bag, type 3 (34783) (FMNH neg. no. 113427).

FIG. 28. Woven wool/yarn/commercial twine bag, type 3 (34783) (FMNH neg. no. 113428).

FIG. 29. Woven wool/yarn/commercial twine bag, type 3 (34784) (FMNH neg. no. 113429).

FIG. 30. Woven wool/yarn/commercial twine bag, type 3 (34784) (FMNH neg. no. 113430).

FIG. 31. Woven yarn bag, type 3 (34785) (FMNH neg. no. 113433).

FIG. 32. Woven yarn bag, type 3 (34785) (FMNH neg. no. 113434).

FIG. 33. Woven yarn/commercial twine bag, type 3 (34786) (FMNH neg. no. 113425).

FIG. 34. Woven yarn/commercial twine bag, type 3 (34786) (FMNH neg. no. 113426).

FIG. 35. Woven wool/yarn bag, type 3 (34787) (FMNH neg. no. 113431).

FIG. 36. Woven wool/yarn bag, type 3 (34787) (FMNH neg. no. 113432).

FIG. 37. **a,** woven wool/yarn/commercial twine bag, type 3 (34788); **b,** unfinished woven yarn bag, type 3 (92046) (FMNH neg. no. 113437).

FIG. 38. Woven yarn/fiber bag, type 3 (34790) (FMNH neg. no. 113438).

FIG. 39. Woven yarn/fiber bag, type 3 (34790) (FMNH neg. no. 113439).

FIG. 40. Woven yarn/fiber bag, type 3 (34791) (FMNH neg. no. 102986).

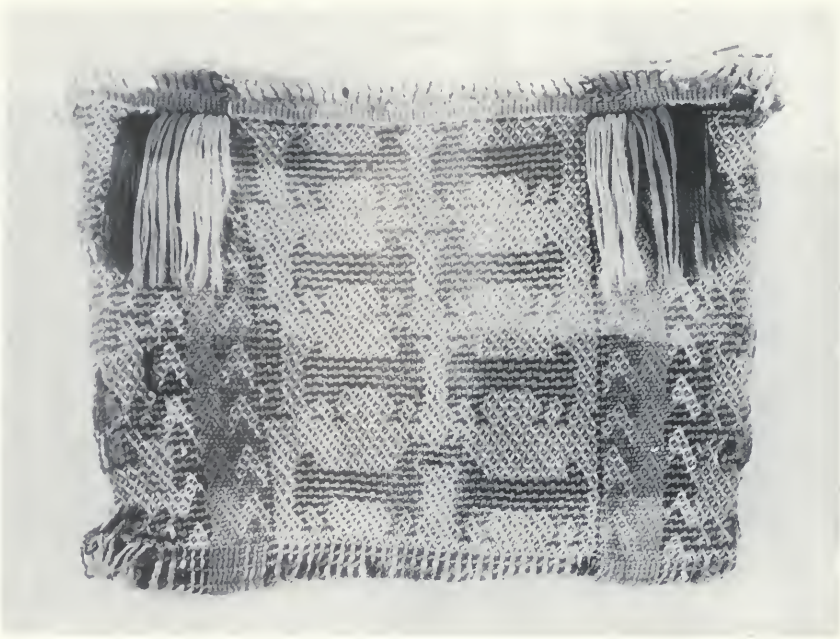


FIG. 41. Woven yarn/fiber bag, type 3 (34791) (FMNH neg. no. 49417).

FIG. 42. Heddle (34855) (FMNH neg. no. 113117).

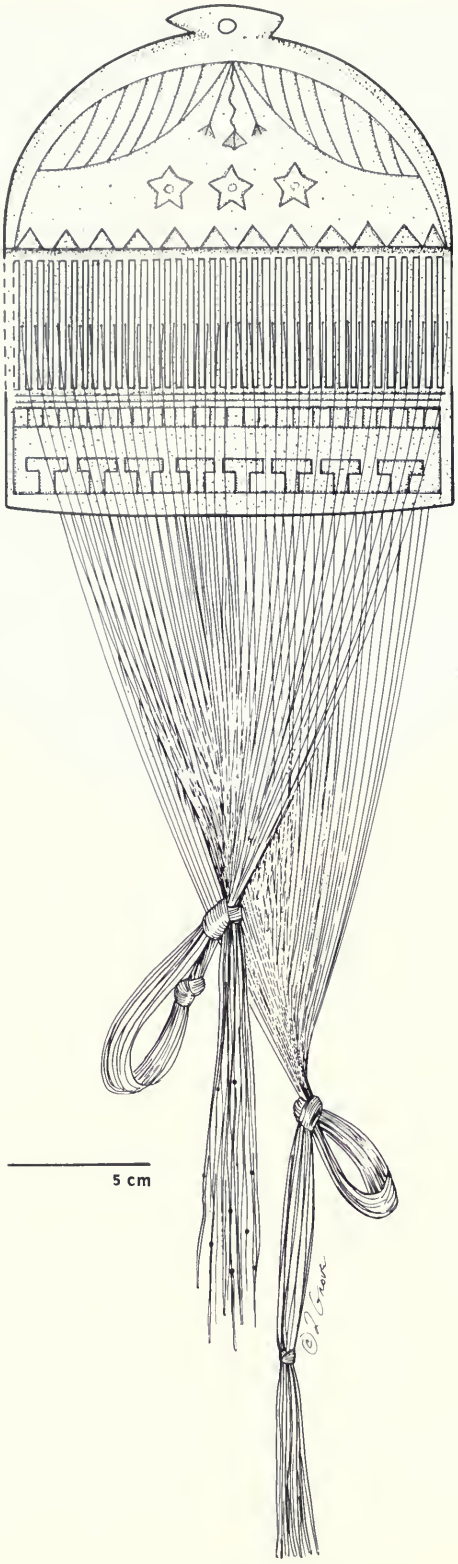


FIG. 43. Heddle (92048).

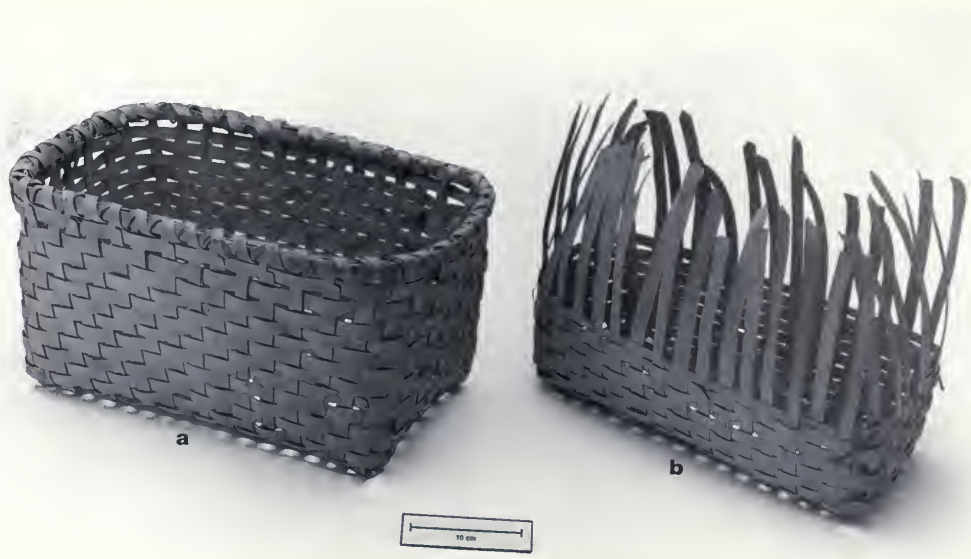


FIG. 44. **a,** basket (34845); **b,** unfinished basket (34847) (FMNH neg. no. 113419).

FIG. 45. **a,** unfinished basket (34849); **b,** pot hook (34863); **c,** pot hook (34864); **d,** pot hook (34862); **e,** pot hook (34861) (FMNH neg. no. 113421).

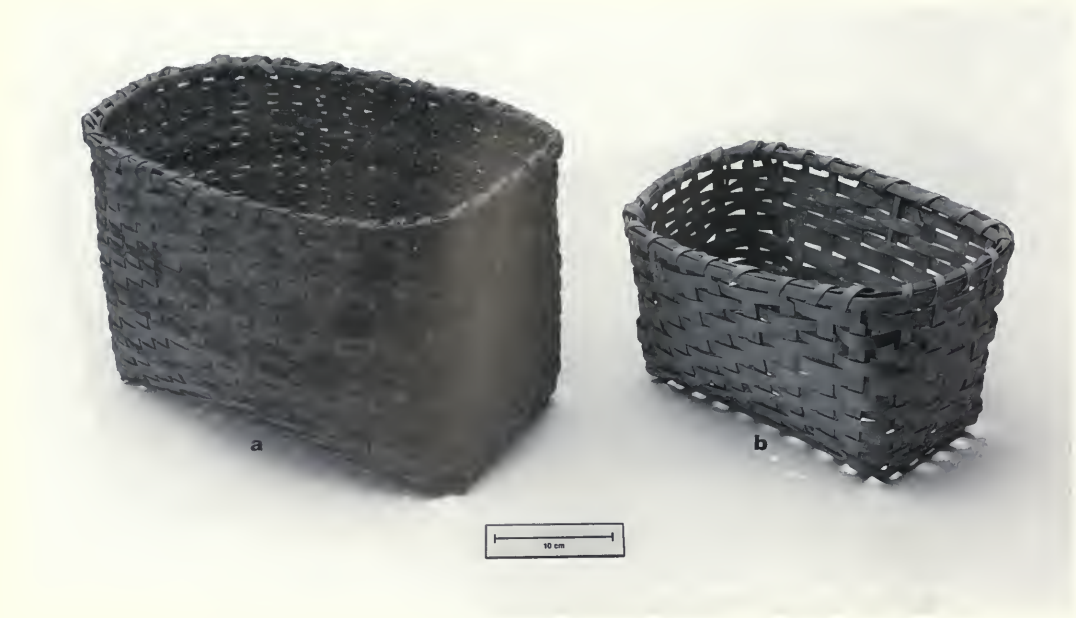


FIG. 46. **a,** basket (34844); **b,** basket (34846) (FMNH neg. no. 113418).

FIG. 47. Mesquakie lodge covered with rush mats (FMNH neg. no. 20675).

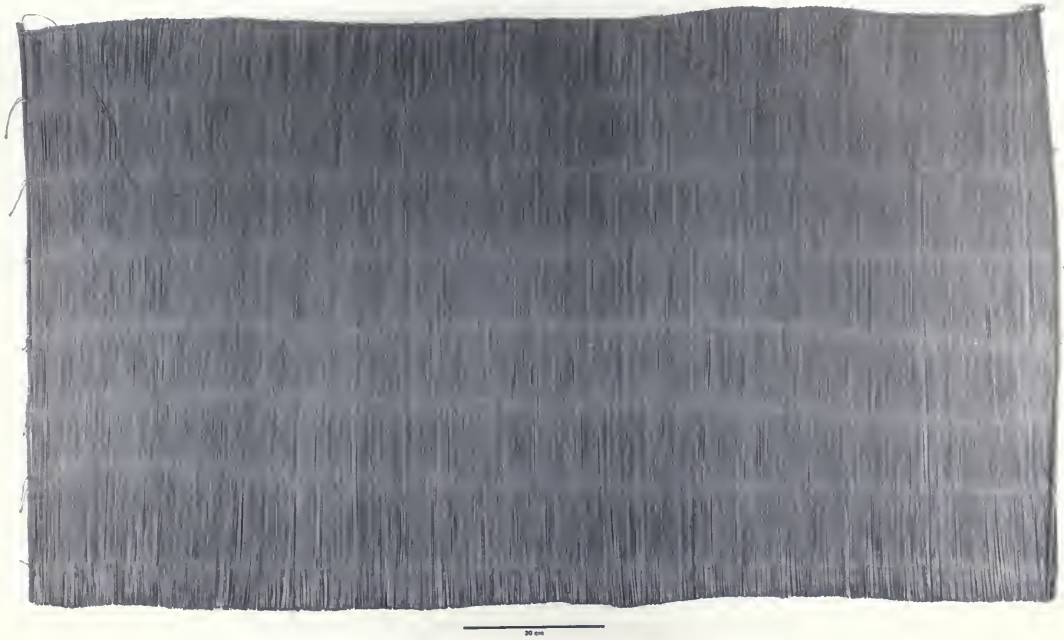


FIG. 48. Cattail mat (34929) (FMNH neg. no. 113467).

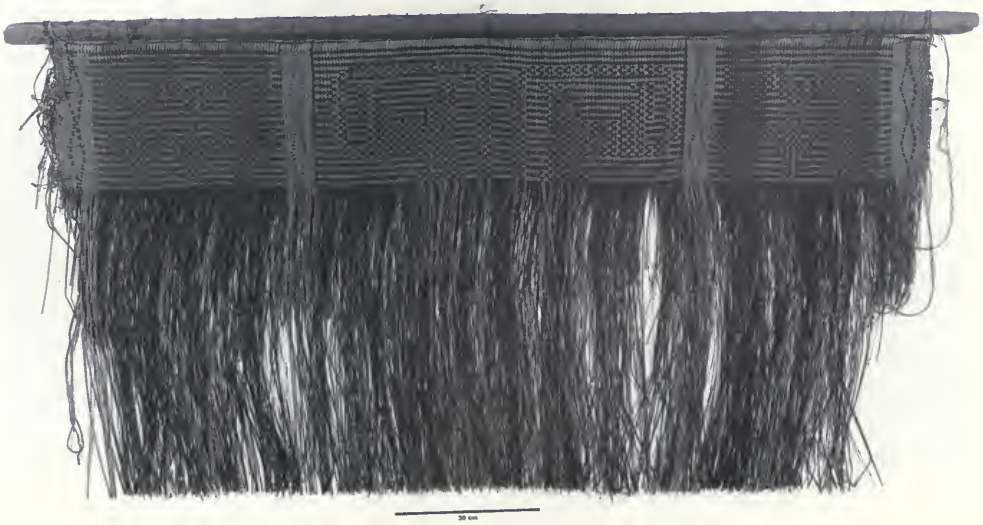


FIG. 49. Unfinished rush mat (34991) (FMNH neg. no. 113471).

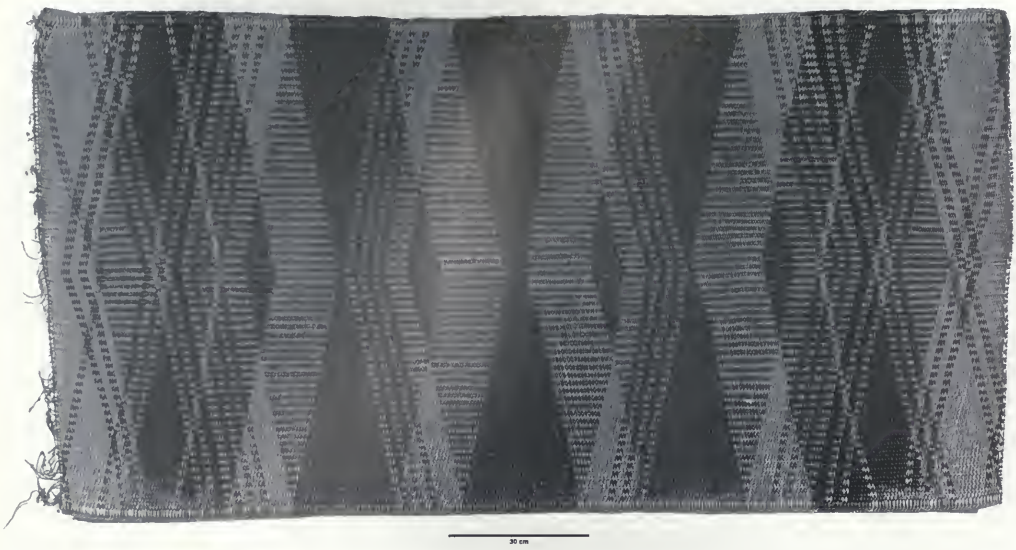


FIG. 50. Rush mat (34930) (FMNH neg. no. 113468).

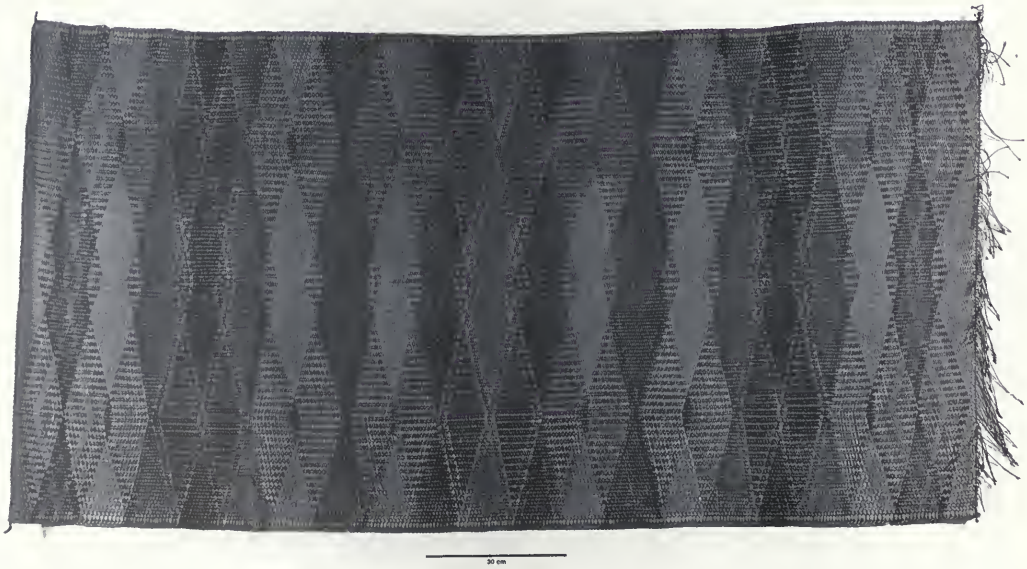


FIG. 51. Rush mat (34931) (FMNH neg. no. 113469).

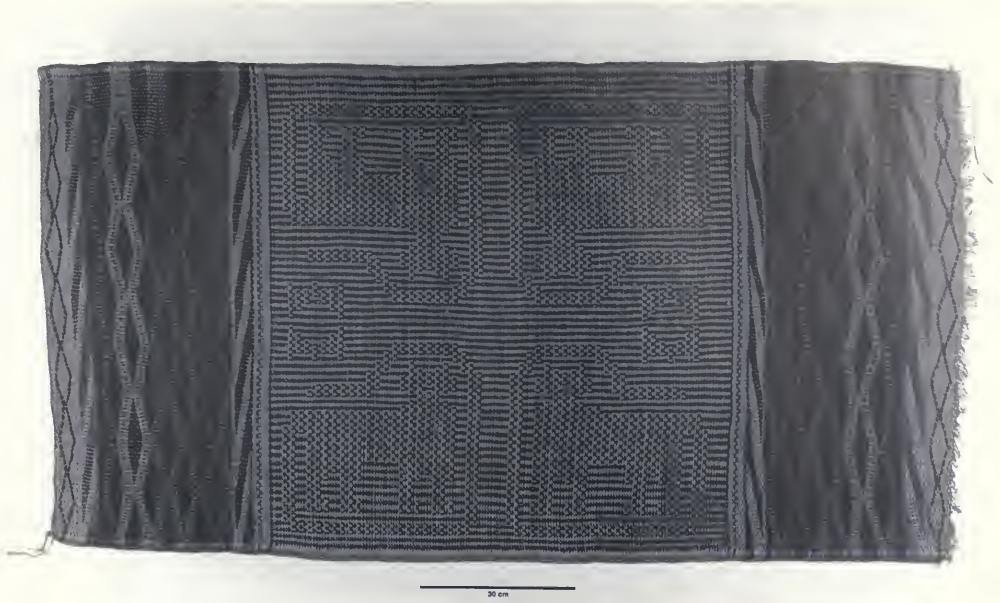


FIG. 52. Rush mat (34934) (FMNH neg. no. 113470).

FIG. 53. Rawhide trunk (34836) (FMNH neg. no. 113414).

FIG. 54. Rawhide trunk (34841) (FMNH neg. no. 113415).

FIG. 55. Rawhide trunk (34842) (FMNH neg. no. 48528).

FIG. 56. Rawhide trunk (34843) (FMNH neg. no. 113417).

FIG. 57. Rawhide trunk (34902) (FMNH neg. no. 113416).

FIG. 58. Rawhide trunk (92012) (FMNH neg. no. 90857).

FIG. 59. **a,** pot hook (34865); **b,** pack strap for trunk (34839); **c,** pot hook (34866) (FMNH neg. no. 113422).

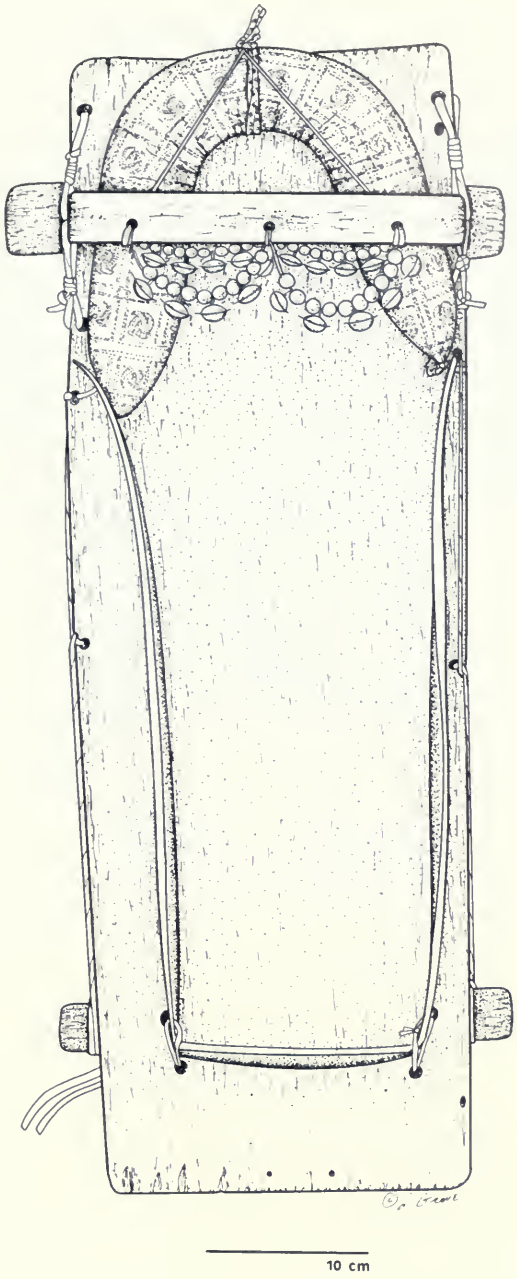


FIG. 60. Cradle (92047).

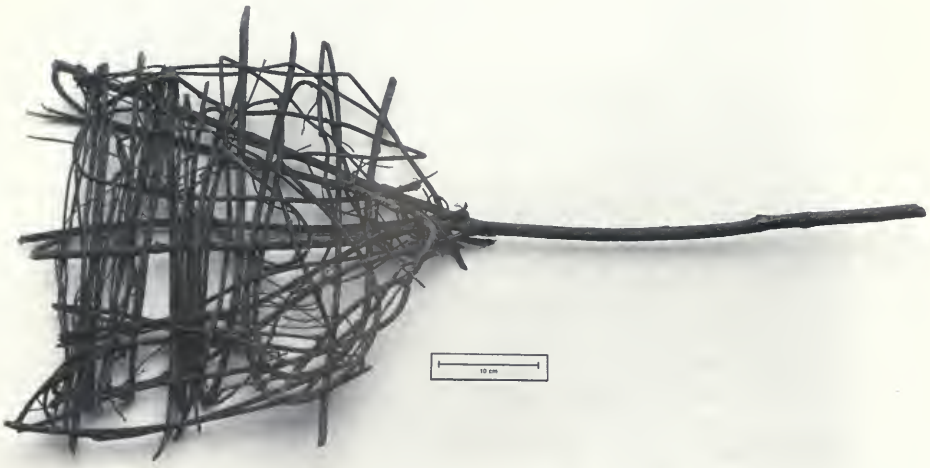


FIG. 61. Frame for drying "kinikinik" (34973) (FMNH neg. no. 113420).

FIG. 62. **a,** man's coat (34935); **b,** man's moccasins (34937) (FMNH neg. no. 113444).

FIG. 63. **a,** woman's jacket (34946); **b,** woman's leggings (34948) (FMNH neg. no. 113447).

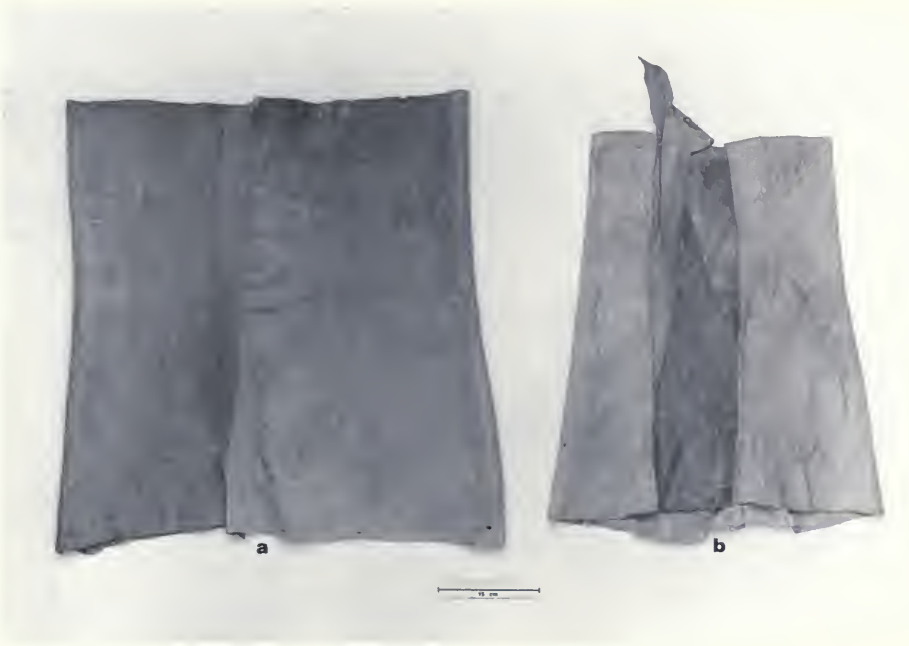


FIG. 64. **a,** woman's skirt (34947); **b,** girl's skirt (34954) (FMNH neg. no. 113441).

FIG. 65. **a,** boy's coat (34897); **b,** boy's shirt (34941); **c,** boy's leggings (34942) (FMNH neg. no. 113445).

FIG. 66. **a,** boy's coat (34898); **b,** girl's jacket (34953); **c,** girl's leggings (34955) (FMNH neg. no. 113446).

FIG. 67. **a,** moccasins (92022); **b,** moccasins (34956) (FMNH neg. no. 113443).

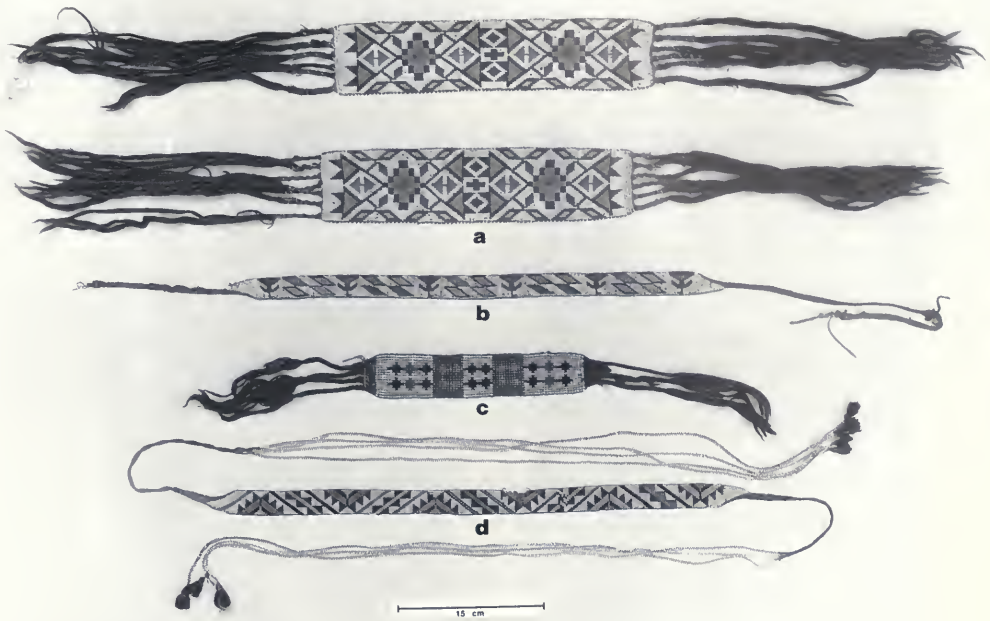


FIG. 68. **a,** garters (92006); **b,** hair pendant and tie (92020); **c,** garter (92016-1); **d,** hair pendant and tie (92015) (FMNH neg. no. 113449).

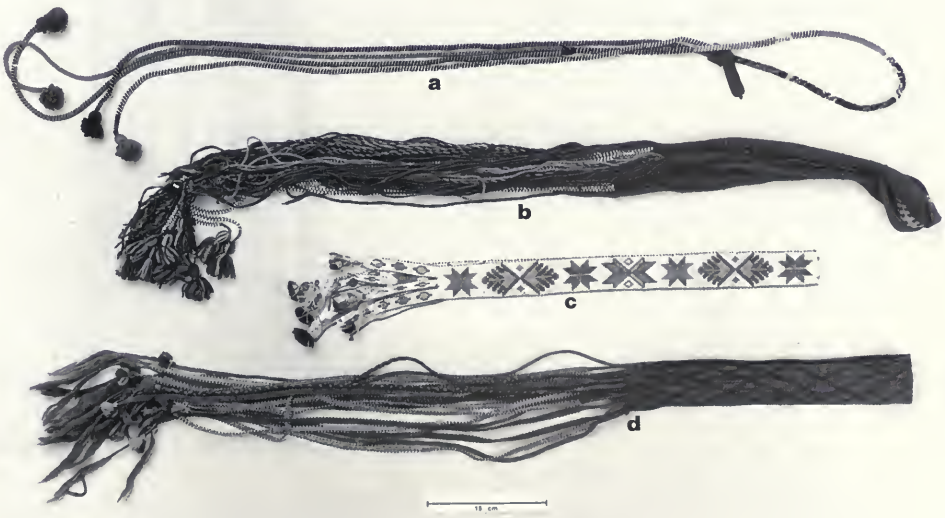


FIG. 69. **a,** man's belt (34907); **b,** sash (92010); **c,** shoulder sash (34908); **d,** sash (92011) (FMNH neg. no. 113448).

FIG. 70. Sash (34899) (FMNH neg. no. 49416).

FIG. 71. Sash (92009) (FMNH neg. no. 49415).

FIG. 72. Man's leggings (34896) (FMNH neg. no. 113440).

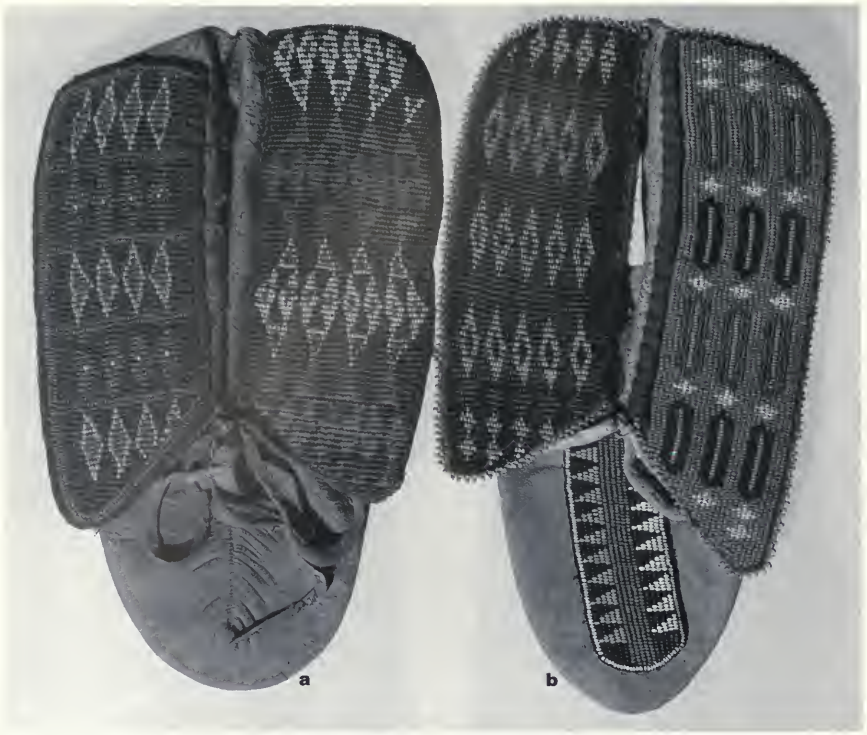


FIG. 73. **a,** woman's moccasins (34906-1); **b,** woman's moccasins (34905-2) (FMNH neg. no. A102248).

FIG. 74. **a,** moccasins (92023); **b,** moccasin (34982); **c,** child's moccasin (34983) (FMNH neg. no. 113442).

FIG. 75. **a,** brooch (34919); **b,** brooch (92068-7); **c,** brooch (92068-2); **d,** brooch (92068-4); **e,** brooch (92069-22); **f,** brooch (92069-17); **g,** brooch (92069-20); **h,** brooch (92069-3); **i,** knife and sheath (34951); **j,** tweezers (92034) (FMNH neg. no. 113451).

FIG. 76. **a,** bracelets (34916); **b,** bracelet (34917) (FMNH neg. no. 113453).

FIG. 77. **a,** ring (34913); **b,** ring (34911); **c,** ring (34915); **d,** ring (34914); **e,** ring (34912) (FMNH neg. no. 113452).

FIG. 78. Necklace (34895) (FMNH neg. no. 113450).

FIG. 79. Roach headdress (34979) (FMNH neg. no. 110961).

FIG. 80. **a,** mask (92041); **b,** mask (92042); **c,** mask (92040) (FMNH neg. no. 113459).

FIG. 81. **a,** flute (92025); **b,** flute (34892); **c,** medicine bag (92055); **d,** medicine pouch (34969); **e,** rattle (92031); **f,** cupping horn (92038); **g,** turtle effigy (34860) (FMNH neg. no. 113460).

FIG. 82. War club (34887) (FMNH neg. no. 113457).

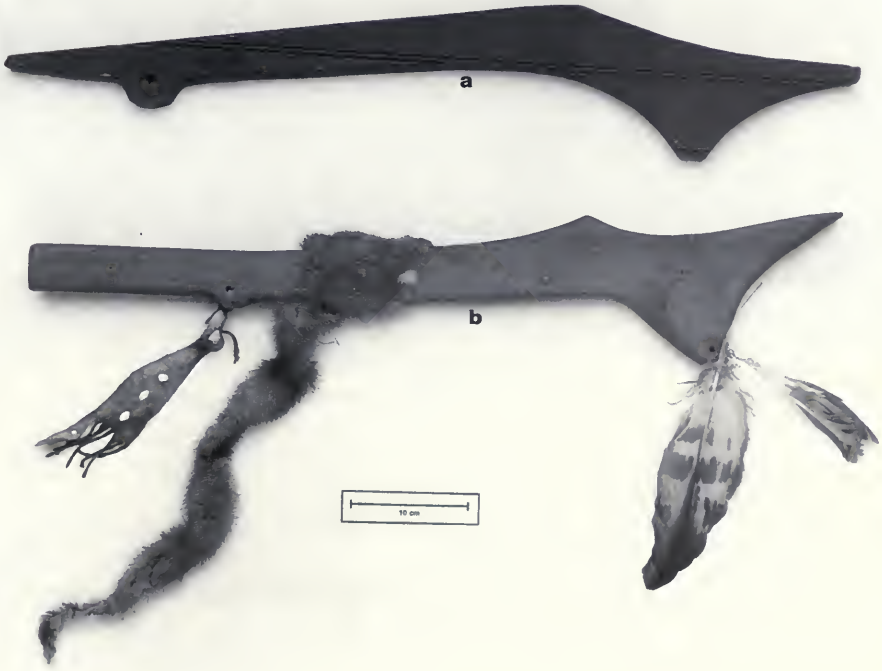


FIG. 83. **a,** war club (92064); **b,** war club (34889) (FMNH neg. no. 113458).

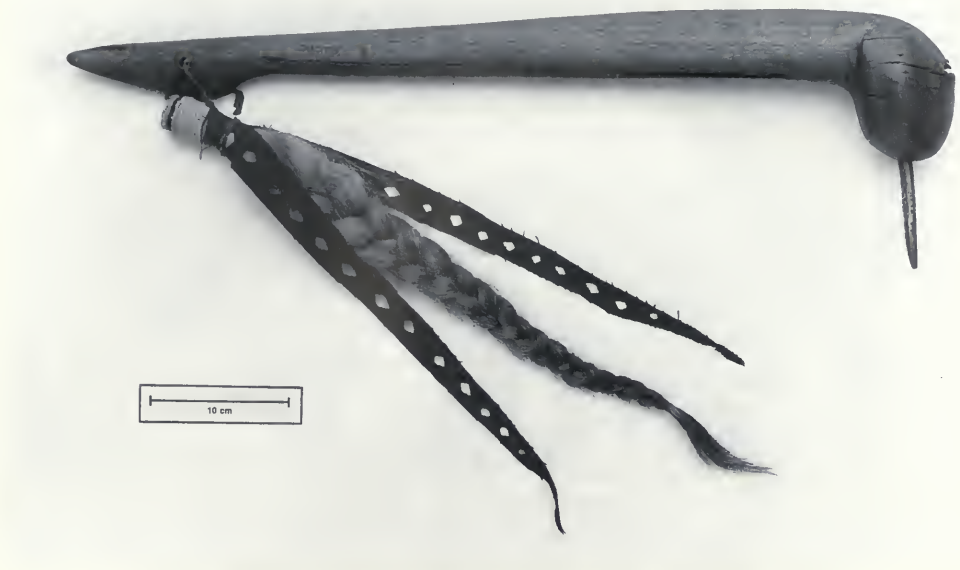


FIG. 84. War club (92039) (FMNH neg. no. 113456).

FIG. 85. Coup stick cover (92057) (FMNH neg. no. 113454).

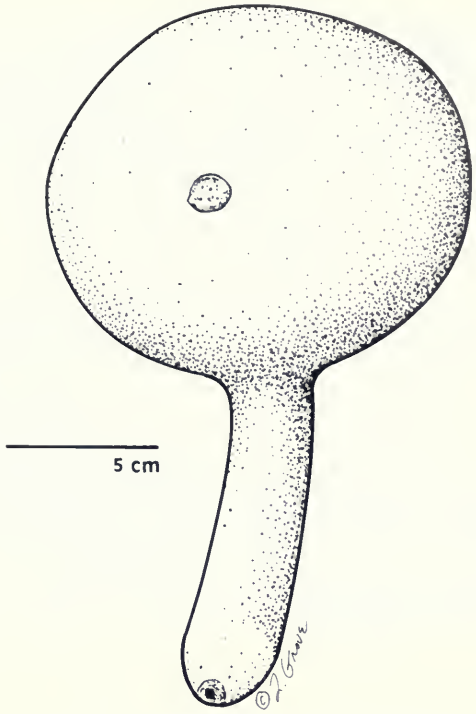
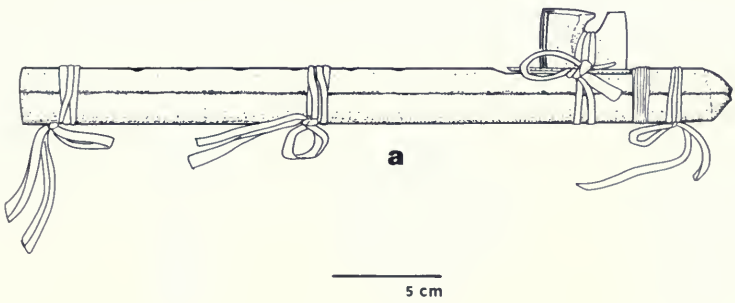


FIG. 86. Rattle (92033).



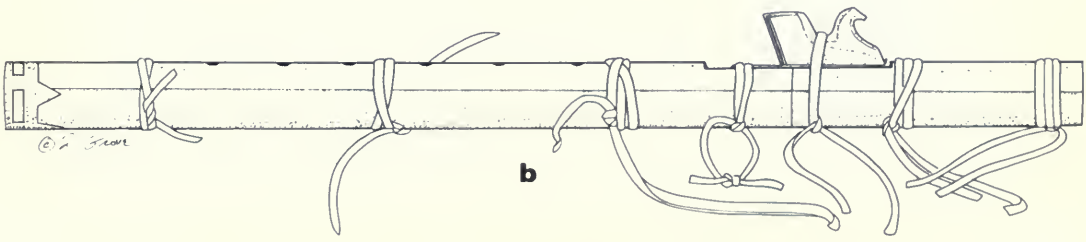


FIG. 87. **a,** flute (34893); **b,** flute (34894).

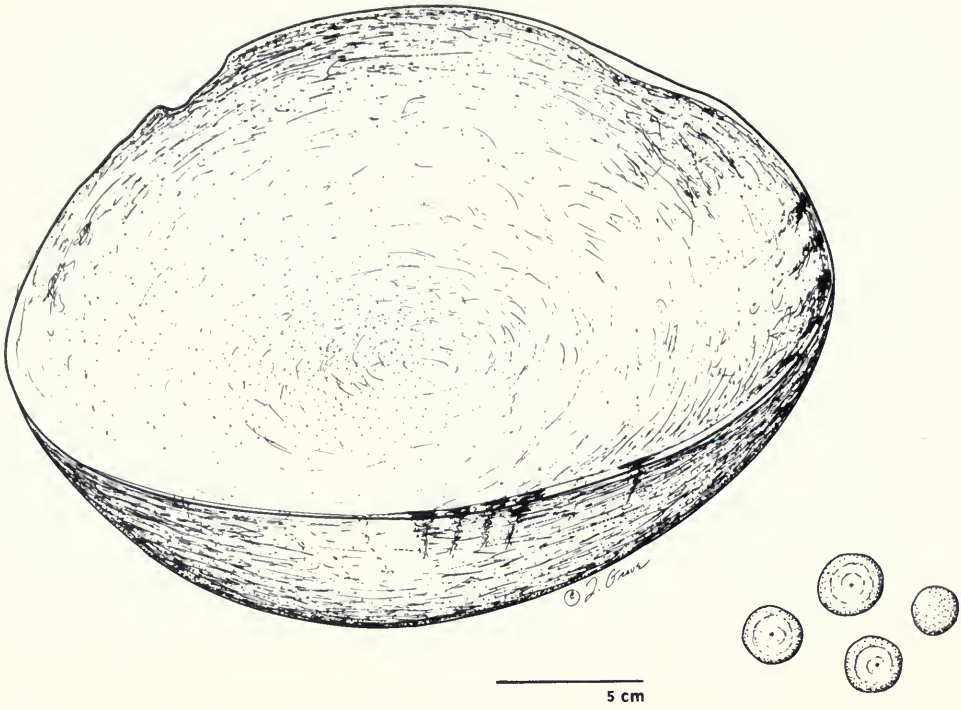


FIG. 88. Dice bowl and dice (34817).

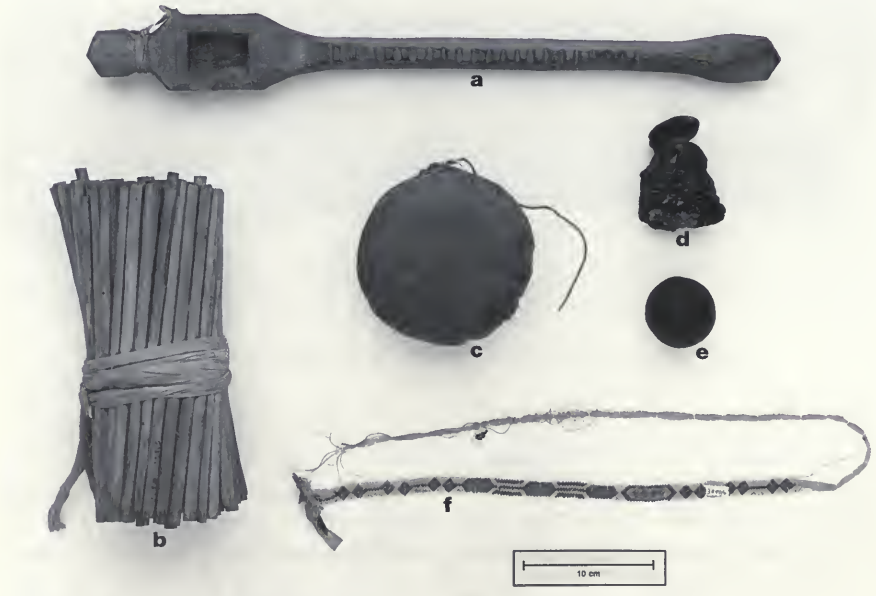


FIG. 89. **a,** shot mould (34885); **b,** counting sticks (34962); **c,** shinny ball (34883-3); **d,** doll (34977); **e,** racket ball (92052-2); **f,** beadwork on a bias (34986) (FMNH neg. no. 113462).

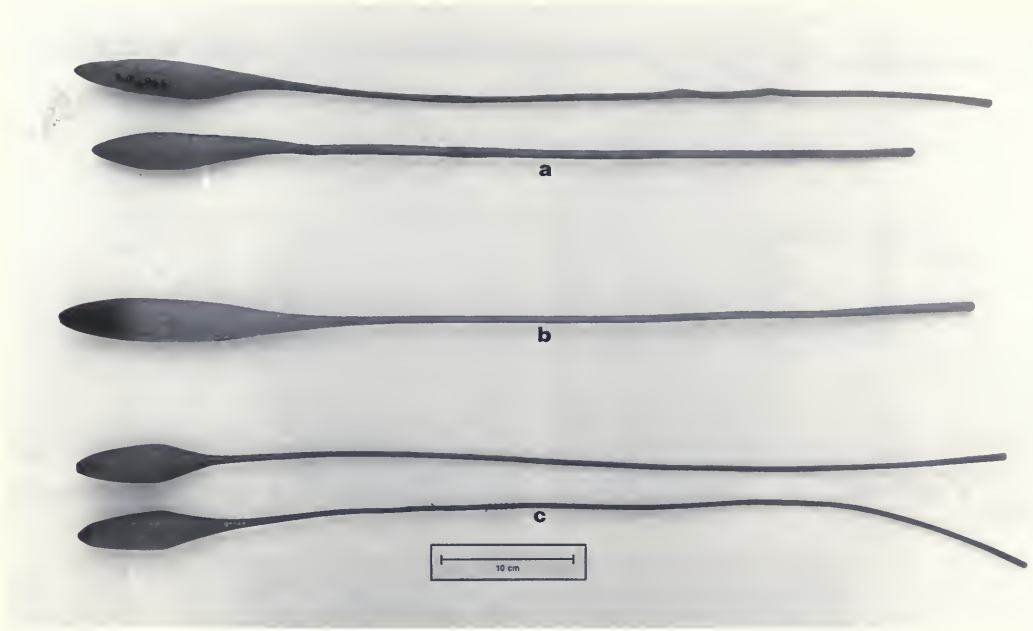


FIG. 90. **a,** snow snake, type 1 (34875); **b,** snow snake, type 1 (34876-2); **c,** snow snake, type 1 (92043-44) (FMNH neg. no. 113466).

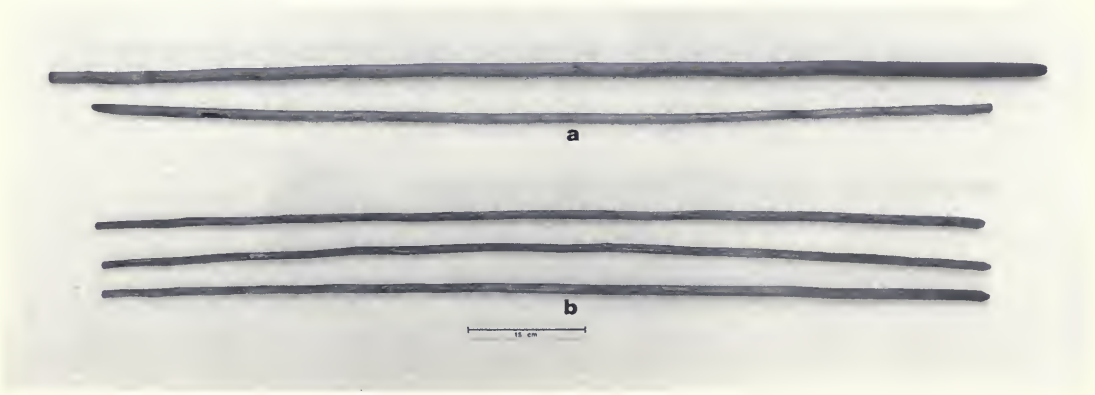


FIG. 91. **a,** snow snake, type 2 (34881); **b,** snow snake, type 2 (34882) (FMNH neg. no. 113464).

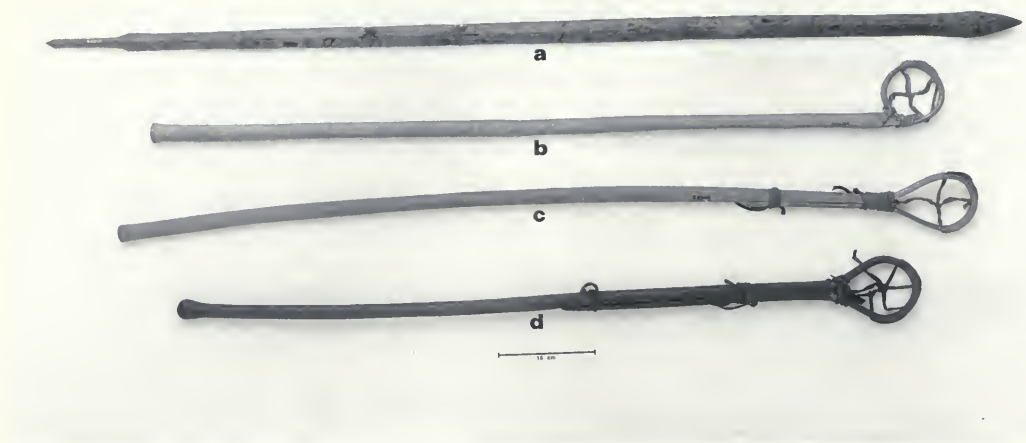


FIG. 92. **a,** snow snake, type 3 (34880-2); **b,** racket (34877-1); **c,** racket (34878); **d,** racket (92052-1) (FMNH neg. no. 113465).

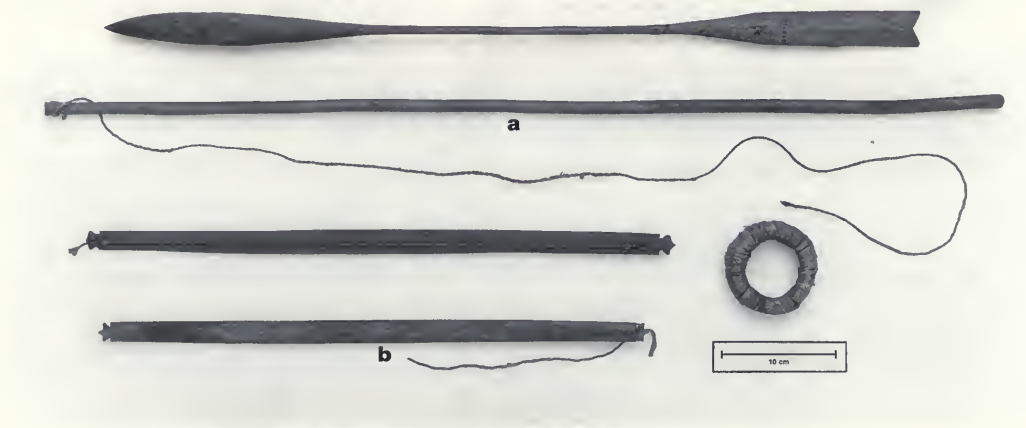


FIG. 93. **a,** snow snake, type 4 (34874-2, 3); **b,** hoop and pole (34869-1, 3, 7) (FMNH neg. no. 113463).

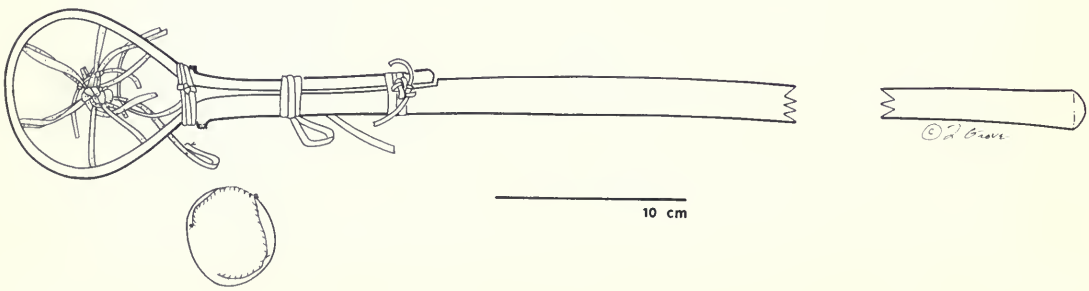


FIG. 94. Racket and ball (34879).

FIG. 95. **a,** unfinished shirt or vest (34984); **b,** breechcloth (?) (92008) (FMNH neg. no. 113461).

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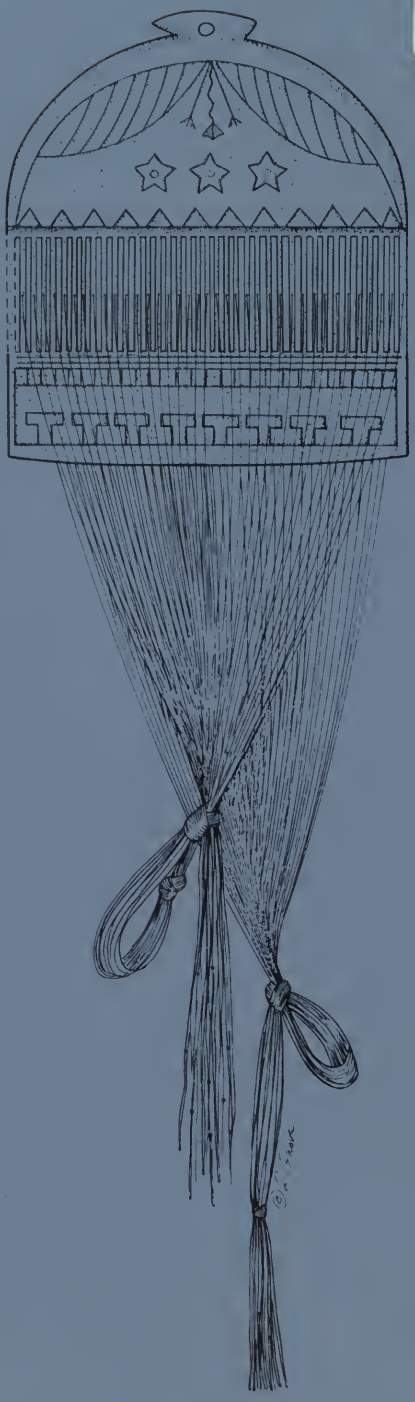

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